



UNIVERSITY OF GOTHENBURG  
SCHOOL OF BUSINESS, ECONOMICS AND LAW

# Management Control Systems in Innovative, Technology-Based Start-Ups and Small Businesses

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- A Study of Seven of the Most Promising Swedish Start-Ups of 2011,  
from a Business and Venture Capitalist's Perspective

## **Bachelor Thesis in Business Administration**

Management Control

Spring Term 2012

Tutor: Peter Beusch

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Gothenburg, June 2012

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# Abstract

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**Bachelor Thesis in Business Administration, University of Gothenburg, School of Business, Economics and Law, Management Control, Spring Term 2012**

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**Title:** Management Control Systems in Innovative, Technology-Based Start-Ups and Small Businesses - A Study of Seven of the Most Promising Swedish Start-Ups of 2011, from a Business and Venture Capitalist's Perspective

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**Background and problem:** During the last decades, know-how and innovations have become critical factors, enhancing the interest for entrepreneurial activities. Nevertheless, it is hard to survive as a recently started business, making it crucial to adopt a well-functioning MCS. There is, however, a paradox that hardly goes unremarked. MCSs are described as hampering creativity and harming the process of innovation, creating a complex situation for innovative businesses. This thesis will explore MCSs in the context of innovation with the following research question:

*To what extent and in what form are management control systems applied in innovative, technology-based start-ups and small businesses?*

**Purpose:** The purpose of this thesis is to analyze to what extent and in what form MCSs are applied in innovative, technology-based start-ups and small businesses that have been recognized for their potential on the Swedish market and to explore their implementation of control.

**Method:** This study was conducted using a qualitative approach consisting of semi-structured interviews in order to obtain in-depth information from a business and venture capitalist's perspective. The method was considered suitable since the study is of a descriptive and explanatory character.

**Results and conclusions:** The visions, strategies, and a creative environment are of high importance in innovative, technology-based start-ups and small businesses. Therefore, results control is advocated, and the employees are expected to perform at their best, motivated by the devotion to the companies' innovations. Budgets, cash flows and contribution- and profit margins are commonly used as control elements. Furthermore, the implementation of MCSs appears to be primarily related to growth or organizational imbalances. The study also shows that the implementation of MCSs depends on the CEOs' perception of control and the influence by the venture capitalists.

**Key words:** Creativity, Entrepreneur, Innovation, Management Control Systems (MCS), Venture Capitalist

# Abbreviations

<b>CEO</b>	Chief Executive Officer
<b>CFO</b>	Chief Financial Officer
<b>EU</b>	European Union
<b>HR</b>	Human Resources
<b>MACS</b>	Management Accounting and Control System
<b>MC</b>	Management Control
<b>MCS</b>	Management Control System
<b>R&amp;D</b>	Research and Development
<b>SME</b>	Small and Medium Sized Enterprise

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# 1. Introduction

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*This chapter presents the context of the study area. A brief background is presented followed by a problem discussion, resulting in the research question and the aim of this study. Furthermore, the limitations of the study are described and the chapter concludes with the outline of the study.*

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## 1.1 Background

*“The world is changing very fast. Big will not beat small anymore. It will be the fast beating the slow.”*  
(- Rupert Murdoch <sup>1</sup>)

Baumol (2002) agrees with Murdoch’s statement, claiming that innovation has become mandatory for survival in the contemporary capitalist economy. Furthermore, the author argues that the process of creating innovation is forced due to the rapidly changing environment and technology (Baumol, 2002). Teece (2009) proclaims that since the 1960s, there has been a significant development regarding globally tradable goods. He argues that transportation costs have fallen whilst tariff and non-tariff barriers have been lowered, resulting in a freer trade. Moreover, the dramatically evolved information technology has resulted in increased outsourcing opportunities, causing focus to change regarding viable options for comparative advantages (Teece, 2009).

High-cost countries of Europe and North America cannot use freely tradable assets as the basis for firm-level competitive advantages (Teece, 2009; Audretsch & Thurik, 2009). Hence, focus has shifted from traditional industry production towards assets more difficult to replicate and trade i.e. intangibles (Teece, 2009; Audretsch & Thurik, 2009). Know-how has become a key differentiator, and the creation of new knowledge through innovation has become a critical factor in the contemporary economy (Teece, 2009; Audretsch & Thurik, 2009). The shift towards knowledge-based industries has induced the emergence of entrepreneurship, where small and medium sized enterprises (SMEs) increase in significance (Audretsch & Thurik, 2009). SMEs make up the majority of all businesses in every country, having great potential to contribute to national export and global integration (Reynolds, 2009). Obviously, size does not matter as much as the ability to adjust and adapt, further supporting Murdoch’s idea that it will be the fast beating the slow in today’s economy.

Long-run economic growth comes from technological innovations, according to Furman, Porter and Stern (2002). The authors claim that the level of innovativeness depends on a country’s innovation structure, the cluster environment and the linkage between those two. The level of higher education, patent and copyright laws and research and development (R&D) tax credits affect the investment and policy choices, setting the general context for innovations in an economy (Furman, Porter & Stern, 2002; Audretsch & Thurik, 2009). Furthermore, the authors argue that the existence of clusters motivates and increases the competitiveness among rival firms. However, even if a country has a strong innovation structure, including support for

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<sup>1</sup> The founder, Chairman and CEO of News Corporation, the world’s second largest mass media conglomerate.



scientists and engineers, its innovativeness may be unsatisfied because of national regulation policies within this specific branch (Furman, Porter & Stern, 2002). Sweden, Japan and Germany established themselves as innovation centers because of their human capital investments, R&D tax credits and the competitive environment (Furman, Porter & Stern, 2002). However, the competition has become tougher. The Chinese government is taking serious action to increase innovation in the country, pushing SMEs to less use of cost control as the utilization of cheap labor (Tang & Hull, 2012). Therefore, Western countries should not underestimate Chinese SMEs' innovativeness.

Survival in the continually increasing global competition requires a well thought out strategy. The European Union (EU) has established *Europe 2020*, a growth strategy where innovation has an explicit role. In addition, the *Innovation Union* is a part of this strategy, aiming at improving growth, employment and life quality for EU citizens (Sporre & Penke, 2011; European Commission, 2011). The previous stated is accomplished by easing the access to finance and improving the general conditions for research and innovation in Europe (European Commission, 2012a). Particularly high focus has been put on SMEs, due to their effectiveness of producing innovations (European Commission, 2006), and they are supported by grants and loans (European Commission, 2012b).

The highly topical focus on innovation has caused the Swedish government to take action as well. At the time being, the Swedish government is developing an innovation strategy, where innovation should generate even more successful companies and a better society for the citizens by 2020 (Regeringskansliet, 2012a). As a part of the strategy, the Swedish government will support SMEs by investing in businesses in need of further knowledge, resources or technology (Regeringskansliet, 2012b). In the *Expert Report Number 34 to Sweden's Globalisation Council*, Baumol (2009) states that promoting entrepreneurship and innovation is of great concern in order to prosper as an economy. Furthermore, he argues that small and recently established businesses are of particularly high importance for the growth and development of a nation (Baumol, Regeringskansliet, 2009). However, many of the newly established businesses in Sweden risk failing (Andersson, 1995). In 2011, 7200 small businesses in Sweden went bankrupt (Statistiska Centralbyrån, 2012). Andersson (1995) argues that a major threat to recently established businesses is an insufficient management control system (MCS).

## 1.2 Problem Discussion

Researchers agree that the creation of innovations within a business has a major impact on the ability to survive in the long run perspective. This matter is a fact due to the increased emergence of competitive small businesses in the rapidly changing environment (Bessant & Tidd, 2011; Davila, Foster & Oyon, 2009; Baumol, 2002; Davila, 2005a; Amabile, 1997; Drucker, 1985). Especially technology-based innovations play a significant role in the new era of sustainability, according to a study conducted by Accenture (2010). The study found that Chief Executive Officers (CEOs) worldwide show a remarkably increased interest regarding the implementation of new technology, revealing major opportunities for entrepreneurs.

A well-functioning MCS is, however, also a prerequisite in order to survive in the long run (Andersson, 1995; Greiner, 1972). Paradoxically though, past research argue that accounting and control have a negative effect on entrepreneurship and innovation (Davila, Foster & Oyon, 2009). According to the traditional view of management control (MC), control is considered harmful in the process of innovation (Simons, 2000; Damanpour, 1991). This view of MC advocates that control in start-up businesses should be limited to bookkeeping (Davila, Foster & Oyon, 2009). Amabile (1998) stands by this view, arguing that control limits innovation since it hampers motivation, freedom and flexibility.

Meanwhile, Davila, Foster and Oyon (2009) demonstrate a birth of a new paradigm in management accounting, but express that this was on the rope in the early 70's by Greiner (1972). He is certain that an increased number of employees cannot be managed by informal communication such as social control, nor can new employees be motivated by the dedication to a product or an organization (Greiner, 1972). Furthermore, Davila, Foster and Oyon (2009) argue that MC is beneficial in a rapidly changing environment. They state that an innovation is the outcome of a creative idea and that a motivational environment eases the process of innovation. Moreover, they conclude that control systems are effective tools to create this motivational environment. Especially the objective-setting process, the use of performance measurements and compensation schemes ensembles the desired environmental context (Davila, Foster & Oyon, 2009). However, past research concludes that the venture capitalists most often have a major influence on the implementation of these MC tools (Sahlman, 1990; Davila, 2005b; Davila and Foster, 2007; Sheu & Lin, 2007).

The research area of control in small businesses has been somewhat neglected in the past (Olson, Blomkvist, Dergård and Jönsson, 2004). Aldrich (as cited in Cardinal, Sitkin and Long, 2004), claims that the main purpose of previous research has been to understand the characteristics and effects of control in large, mature organizations. Davila, Foster and Oyon (2009) together with Dergård (2006) agree with this view claiming that scholars have put less attention to smaller businesses and that further research is needed in order to develop the framework regarding smaller businesses in an entrepreneurial context. Andersson (1995) investigated whether small companies need a special type of MCSs. According to him, there is plenty of research regarding MCSs in large corporations, which sometimes is applicable in small businesses affecting the need of further research in a small business context (Andersson, 1995). However, he indentified some differences, and concluded that small companies could benefit from a modified MCS.

### 1.3 Research Question

The enhanced focus on technological innovations in small businesses increases the interest of understanding what role the MCSs have in this context. Studying MCSs in small businesses is by no means a unique research approach; neither is studying the innovation process in technology-based corporations. However, considering both approaches creates a complex research subject, in which the following question can be asked:

*To what extent and in what form are management control systems applied in innovative, technology-based start-ups and small businesses?*

## 1.4 Purpose

The purpose of this thesis is to analyze to what extent and in what form MCSs are applied in innovative, technology-based start-ups and small businesses that have been recognized for their potential on the Swedish market and to explore their implementation of control.

In addition, this study aims to complement past research regarding management control of small businesses in the context of innovation. We believe that studying MCSs in innovative, technology-based start-ups and small businesses will contribute to the research field of entrepreneurial activities in an area that previous studies have somewhat neglected.

## 1.5 Limitations

Firstly, this study will be limited to a Swedish context, which will affect the generalizability of the study results. Secondly, since this study will have an approach of start-ups and small businesses the second limitation considers the definition of them. In this context we define small businesses as companies with less than 50 employees. The third and last limitation considers the sample of the study. This thesis will only examine and explore the view of seven companies. Therefore, the generalization regarding other companies will be limited. Moreover, this study rather aims at describing to what extent and in what form MCSs are applied in the seven companies today, and their implementation of control.

## 1.6 Outline of the Study

This thesis is structured as follows. In chapter two the applied method will be presented and explored. Chapter three presents the theoretical framework, describing previous research in the subject area. In this section, relevant theories and disciplines are introduced and focus will be on presenting MCSs in the context of innovative, technology-based, small businesses. The fourth chapter demonstrates the empirical findings from the interviews. The MCSs and the implementation of control are explored from two perspectives: the business perspective and the venture capitalist perspective. The perspective of the businesses is divided into five sections: “Background of the Businesses”, “Organization”, “Basic Premises for the Creation of the MCS”, “Formal Control” and “Informal Control”, covering the empirical findings related to the seven companies. Thereafter, a supplementary section follows, which presents the venture capitalist’s view of the studied phenomena. Chapter five examines the results where the empirical findings are discussed and analyzed with the support of the theoretical framework. In chapter six the research question will be answered in order to fulfill the purpose of the study. Lastly, the chapter ends with suggestions for future research.

## 2. Methodology

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*This chapter demonstrates the methodological choices made when conducting this study followed by a description of the research model and process. Furthermore, the selection of firms and respondents are described as well as the criterion for gathering data. The chapter concludes with a discussion of the quality of the study.*

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### 2.1 Research Approach

The primary aim of this thesis is to understand to what extent and in what form MCSs are applied in technology-based, innovative start-ups and small businesses. The purpose of the study calls for an increased understanding of the environment in which those particular businesses operate, as well as the environment inside the businesses. Therefore, the study is of a hermeneutic approach, aiming at interpreting and understanding the context in which the selected firms operate, in contrast to a positivistic approach, which seeks to find a generalized true answer to the research question (Hartman, 2004; Larsen, 2009; Yin, 2011).

Prior to the collection of primary data we found it necessary to familiarize with previous studies and research in the area of MCSs in small entrepreneurial businesses. In addition, a literature review was conducted and several articles that could contribute to forming the ground for this study were discovered. This method is supported by Yin (2011) who claims that a qualitative study's effectiveness depends on how well the researcher knows the topic prior to the collection of primary data.

In order to comprehend the subjective environment inside the businesses we conducted a qualitative study based on interviews in accordance with Hartman (2004), Larsen (2009) and Yin (2011). By this method we enhanced our ability to describe how the businesses are applying MCSs today by asking questions such as *“how do you control the company”* and *“what do you expect of the employees”*. Furthermore, the study is explanatory since we made an attempt to understand why MCSs are implemented in the businesses (Blumberg, Cooper & Schindler, 2011) and the respondents were e.g. asked, *“why do you not evaluate key performance indicators such as solidity”*.

### 2.2 The Study's Research Model

Generally, the stakeholders associated with innovative start-ups and small businesses are the entrepreneur and the venture capitalist. The entrepreneur comes up with a creative idea (an innovation) whilst the venture capitalist invests capital (resources), undertaking a certain risk. At some point a MCS is implemented, forced on by the venture capitalist or introduced by the organization itself. This thesis will study to what extent MCSs are applied in start-ups and small businesses as well as the process of implementing control, from two perspectives. Initially, the view of seven start-ups and small businesses will be presented, followed by the perspective of a venture capitalist. Figure 1 shows this study's research model.

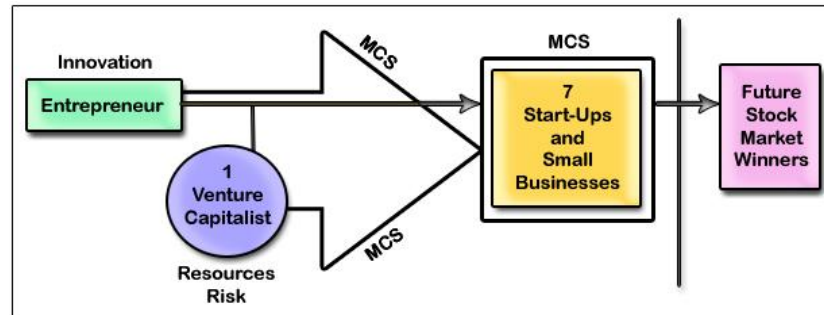


Figure 1: This study's research model, examining to what extent MCSs are applied in start-ups and small businesses as well as the process of implementing control (illustration by the authors).

## 2.3 Selection of Firms and Respondents

In order to understand the situation in innovative, technology-based start-ups and small businesses an accurate sample was required. *Affärsvärlden* and *NyTeknik* are two Swedish magazines that are intensely following the development of national technology-based, innovative start-ups. *Affärsvärlden* is known as one of Sweden's foremost business magazines, providing qualified analyses of companies and branches to business leaders of medium and large companies and active savers (Talentum, 2012a). *NyTeknik* is the largest IT and technology magazine in Sweden, focusing on fast growing branches and start-up companies with the potential of becoming tomorrow's international successes (Talentum, 2012b). For the last five years, the magazines have been involved in a project aiming at identifying Sweden's 33 most promising, innovative businesses (each year) in order to foresee future stock market winners.

By using their publication as a basis for the selection of companies we obtained a context concerning both businesses that have been recognized for their potential (of the right size) and technological innovations. The public nominates the companies on the list. In addition, the selection amongst them is made by a jury, which is commissioned by the magazines (Alpman, 2012). The fact that an external jury reviews the companies additionally ensures the credibility of the choice of companies. To be nominated, the companies must meet certain criteria. Firstly, the companies need to be younger than seven years and based in Sweden. Thereafter, the main criterion is that the businesses should have developed a unique product or service with great international potential (Alpman, 2012).

This study examined seven out of the 33 most promising, innovative businesses listed on the magazines' publication of 2011. In accordance with Hartman (2004) we made a selection of companies that included some variety, in order to obtain several perspectives of the phenomenon studied. All of the companies are technology-based, but with very different products and in different development stages. An attempt to interview all three firms on the list operating in Gothenburg was considered important due to the assumed higher quality of an in-depth interview in person, compared to telephone interviews. This convenience sampling (Yin, 2011) resulted in two face-to-face interviews in Gothenburg out of three possible. The two interviews were held in the company offices in Gothenburg. The additional five firms were selected by a purposive sampling (Yin, 2011) with the aim to obtain variations in age, size, branch, and product. In total, five out of seven interviews were executed by telephone.

The interaction with the companies indicated that venture capitalists had a significant influence in the process of implementing MCSs in the interviewed businesses. Therefore, we later supplemented the study by interviewing the CEO of a venture capital firm. The interview was executed at the venture capitalist's office in Gothenburg.

The selection of respondents from the chosen companies was carried out in accordance with Bergström and Lumsden (1993), arguing that the CEOs generally obtain key positions in small companies, having great decision power and insight into the MCSs. Consequently, we considered the CEOs as the most suitable respondents to interview.

## 2.4 Collection of Data

### 2.4.1 Primary Data

To gain a comprehensive understanding to what extent MCSs are applied in innovative start-ups and small businesses a qualitative study was conducted based on in-depth interviews. Firstly, the CEOs of the businesses were interviewed. Their perspectives were later complemented with the view of a venture capitalist, followed by supplementary interviews with the CEOs. Figure 2 illustrates the timeline considering how the interviews were executed.

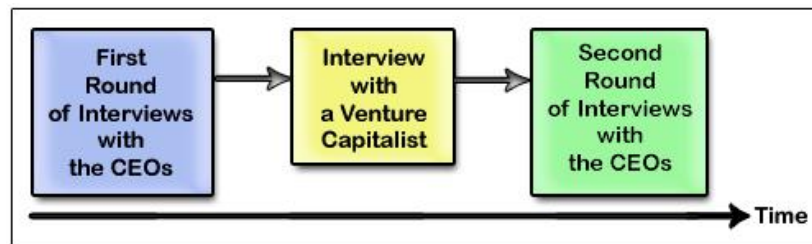


Figure 2: Timeline of how the interviews were executed (illustration by the authors).

Larsen (2009) recommends semi-structured interviews for studies that are time restricted and where the interviewers lack experience when it comes to performing interviews. Therefore, we conducted semi-structured interviews during the first round of interviews. Consistent with Trost (2010) and Larsen's (2009) recommended techniques regarding qualitative interviews, we also tried to ask open and simple questions, avoiding technical terms, in order to receive comprehensive answers from the respondents. During all the interviews we started with questions regarding the respondents background, such as education and previous work experience easing the interview situation and making the respondents comfortable (Larsen, 2009). The guiding questions were delivered to our respondents in advance by email, in order to give them a chance to prepare and thereby be able to deliver in-debt information. Appendix A shows the first round of questions sent to the respondents in the seven companies.

Since the selected companies are operating nationwide, five of our seven interviews had to be conducted by telephone. These telephone interviews were approximately 30-45 minutes long, and the interviewer was responsible for taking notes during the conversation. The interviews held face-to-face took one hour. One of the authors was the interviewer responsible for asking all the questions whilst the remaining two were able to ask supplementary questions.

After conducting the first round of interviews we noticed that the implementation of MCSs in several of the companies was strongly influenced by venture capitalists and the board of directors. This finding was considered as important for this study, and we contacted a venture capitalist firm in order to explore if, and how the venture capitalist forced the implementation of MCSs into start-ups and small businesses. Since the businesses in our study are technology-based we decided to contact a venture capitalist that had experience in this branch. An interview was executed with the CEO of AB Chalmersinvest, a venture capital firm focusing on technology-based start-ups from Chalmers University of Technology. The interview was structured, in order to obtain relevant and complementary information. Appendix B shows the asked questions.

Subsequent to compiling the empirical findings from the first round of interviews with the seven companies and the interview with the venture capital firm, we identified the common use of MCSs and thereby what areas that would be interesting to further investigate. Thereafter, a second round of questions was sent to the companies (shown in Appendix C), with the intention of obtaining more in-depth knowledge about the subject. All of the respondents received the same questions by email and were instructed to answer them within a week. This method was chosen to allow the respondents to interpret the questions as they wished, and give us well-considered answers. Unfortunately, two of the respondents were not able to participate in the second round of interviews. In addition, some of the received responses were not very satisfying, contributing marginally to a deeper understanding. This was somewhat expected though, since the respondents did not interact personally with the interviewers. However, some of the informants delivered gainful answers (e.g. one of the interviewees who specifically asked for a new interview by telephone).

In view of Trost (2010), we did not record any interviews because of the risk that the respondents would suppress information. Instead we took notes and let the respondents confirm the information before the final compilation of our empirical findings.

### 2.4.2 Secondary Data

Initially, the notion of MCS, innovation and entrepreneurship had to be defined and interpreted, since their contextual overlap form the basis for this study. They are all broad concepts with disputed definitions. We have been using literature from all three separate research fields as well, however, solely when the presented conclusions have been considered applicable for the research area of this study. Furthermore, present research seldom focuses on the somewhat narrow notion of start-up businesses. Instead, the broader concept SMEs is frequently used. Consequently, we have been assuming that past research and literature regarding SMEs is applicable in our study since it includes the context of small businesses. In addition, we have been using literature regarding venture capitalists, since this study also aims to capture their influence on the implementation of MCSs in start-ups and small businesses. Figure 3 illustrates the five concepts and their contextual overlap, constituting this study's research area and focus when searching for relevant literature.

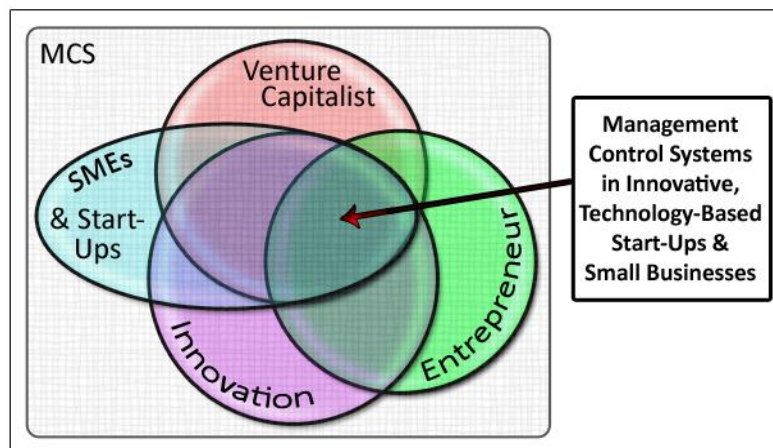


Figure 3: The research area of the study and the focus when searching for relevant literature (illustration by the authors).

The articles, books and dissertations used in this thesis have been found through electronic searches in databases. Keywords used were e.g. “entrepreneur\* (AND) innovation”, “management control system\* (AND) innovation”, “management control system\* (AND) entrepreneur\*”, “management control\* (AND) creative\*”, “venture capital\* (AND) entrepreneur\*”, “venture capital\* (AND) small businesses” (and the corresponding Swedish words). Initially, we selected peer-reviewed articles among our search results. Additionally, we paid a particular interest to frequently cited articles. Furthermore, we screened the references of interesting articles or books in order to obtain further relevant literature. Manual searches in local libraries were also conducted. Databases used were Business Source Premier, Retriever Bolagsinfo, Emerald, ScienceDirect, SpringerLink, LIBRIS, GUNDA and GUPEA. Finally, a document analysis (Blumberg, Cooper & Schindler, 2011) consisting of the companies’ annual reports was conducted in order to find relevant information for the study.



## 2.5 Quality of the Study

The most significant drawback of this study is that the results are not generally applicable to all innovative, technology-based start-ups and small businesses. The amount of companies examined is not very substantial; solely seven businesses have been studied and only one venture capitalist's view has been examined. A quantitative study could have provided statistically significant results, leading to a greater understanding of the phenomenon. However, this study's aim was to explore the subjective environment, seeking to answer questions like how and why the MCSs are used. These types of questions are difficult to answer when conducting quantitative studies. Therefore, we believe that a qualitative study was the right approach. In addition, we advocate that seven companies are not too few in order to see some general patterns and draw some conclusions.

Furthermore, by interviewing solely one respondent from each company we might have obtained a limited picture of the companies and their MCSs, since we only received one person's view of the business. In addition, the Chief Financial Officer (CFO) might have provided more in-depth information regarding the MCS, than the CEO. However, several of the studied companies did not have a CFO, making it hard to find relevant respondents other than the CEOs. Furthermore, some CEOs were employed after the business foundation resulting in an unfavorable information discrepancy and lack of knowledge regarding the organizational development. Four of the respondents have been involved in the businesses since their foundation whilst three of them have been employed at a later stage. Another weakness related to the choice of respondents was that almost half of the CEOs have a technical education, rather than an economic one, causing the interviews to have a somewhat too strong emphasis on technology compared to business and management. Three of the interviewees are engineers whilst four of them have an MBA or a BA in economics (plus a master degree majoring in various fields).

Larsen (2009) proclaims one advantage with qualitative studies, concerning the validity. In contrast to quantitative studies, he argues that high validity is possible to obtain in qualitative studies because of the ability to make complementary interviews during the work process. In this study the respondents from the seven companies have been interviewed in two rounds, which may increase the validity of the answers since the questions were stated in a triangulating manner. This means that we provided the interviewees with somewhat overlapping questions, however stated differently, in order to understand the genuine gist of the responses. Additionally, interviews often allow the respondents to emphasize what they consider as important leading to a different perspective than the writers originally had in mind, which is most often impossible in quantitative studies (Larsen, 2009). After the first round of interviews in this study, it appeared necessary to further examine the influence of venture capitalists. In our opinion, the supplementary approach unquestionably favored the study.

However, in contrast to quantitative studies, reliability is difficult to achieve whilst utilizing qualitative methods, since it is harder to evaluate the accuracy of the study by conducting the study several times in order to obtain the same outcome (Larsen, 2009). In addition, interviews will unquestionably result in subjectivity (Andersson, 1995). The questions need to be interpreted by the respondents and the answers will be subjectively understood by the interviewers and thereafter by the reader of the thesis (Andersson, 1995). Commonly, both the context and the interviewer influence interviewed respondents, leading to misinformation

(Larsen, 2009). In this study, the interviewees might have delivered distorted answers in order to e.g. satisfy the interviewers, as opposed to the case of a questionnaire (Larsen, 2009). The respondents might also have given answers that they believe are generally accepted ones or tried to present their company in a more impressive way, because of the concrete presence of the interviewers (Larsen, 2009). In addition, a major part of the interviews considered historical decisions, exposing the study for the risk of forgetfulness amongst the respondents (Trost, 2010).

Explorative studies have in past research been limited according to Blumberg, Cooper and Schindler (2011). Critics have been raised towards this qualitative technique, concerning its supposed subjectivity, non-representativeness and non-systematic design. However, Blumberg, Cooper and Schindler (2011) argue that realistic explorative studies save both time and money, and should in the future gain greater ground. An important aspect concerning the selection of companies to explore in this study is, however, that the advancement of the studied businesses varies considerably. Some companies are still in the R&D phase whilst others already have established themselves on the market. Undeniably, this caused us some problems when seeking general patterns.

Since all the interviews were in Swedish, the respondents' narratives have been translated to English. Transcribing interviews may lead to unintended subjective interpretation. However, the translation has been carried out in a careful manner to prevent the correct substance from being misinterpreted. To enhance the validity of the face-to-face interviews, all three authors have been present, asking supplementary questions and taking notes, in accordance with Larsen (2009). Mikkelsen (2005) states that the procedure of taking notes, instead of recording the interviews, will enhance the quality of the study, since the communication is validated. Furthermore, Larsen (2009) highlights the importance of clearly separating the narratives from each other, in order to enhance the reliability of the study. Therefore, we have been transcribing the interviews as quickly as possible and handling the information in a careful manner.

Another important aspect is the use of the businesses' financial information in this thesis (demonstrated in table 1). The information is retrieved from the companies' annual reports from 2011 (considering the financial year 2010). Since all of the companies have not published the reports of 2012, we had to use the annual reports from the previous year in order to make fair comparisons between the companies. This may impact the argumentation in this thesis negatively, since we have sometimes been using up to date figures when we found it necessary to present the current situation of the companies in a more precise way. For example, when the organizational schemes are presented, they are picturing the *current* situation of the companies, resulting in a discrepancy regarding the number of employees when compared to table 1. Undeniably, this inconsistent use of figures leads to unnecessary confusion when it comes to communicating the picture of the businesses to the reader of this thesis. Consequently, we have been trying to be extra precise when discussing the figures.

## 3. Theoretical Framework

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*This chapter aims to give the reader a well-founded theoretical background to the previously presented problem statement. Initially, the concepts of entrepreneurship and innovation will be defined, setting the context in which the MCSs will be explored. In addition, research demonstrating the process of implementing MCSs in small innovative businesses will be presented. The chapter concludes with a demonstration of the venture capitalists' influence on the implementation of MCSs.*

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### 3.1 Entrepreneurship and Innovation

The word entrepreneur has its roots in the French language and is the English translation of *entreprendre*, which can be understood as “to take in one’s own hand” (Schaper, Volery, Weber & Lewis, 2011). In spite of this, the definition of entrepreneur varies among theories and over subjects. According to Drucker (1985) followed by Bessant and Tidd (2011) innovation arises from entrepreneurial actions. Innovation cannot be created unless there is an entrepreneur who is willing to sacrifice resources such as time and money in order to create value (Bessant & Tidd, 2011). Research indicate that the quality of entrepreneurship affects the growth in respective e.g. country or for this matter organization (Schaper, Volery, Weber & Lewis, 2011). Since entrepreneurs create improvements in various ways such as technological and organizational, they stress productivity and efficiency, which leads to new jobs and economic welfare (Schaper, Volery, Weber & Lewis, 2011; European Commission, 2012a)

Change is the main component for successful innovations, enabling opportunities. An entrepreneur is capable of identifying this change and taking advantage of opportunities (Drucker, 1985). Therefore, activities perceived as negative whilst adapting to change, e.g. control, has had a limited role at this stage (Davila, Foster & Oyon, 2009). Drucker (1985) claims that measuring the benefits of innovation and entrepreneurship encourages future innovative performances, and these should be judged against an entrepreneurial plan. The plan should consist of innovation objectives and motivate the organization to work with its entrepreneurial ability.

Innovation can emerge in a new product or process, or solely appear as an improvement of already existing ones (Bessant & Tidd, 2011). Bessant and Tidd (2011) emphasize that innovations created *within* a company are intrapreneurial innovations, whereas those created *outside* an existing organization are entrepreneurial ones. Davila, Foster and Oyon (2009) have a slightly different approach regarding the definition of entrepreneurship and innovation, stating that the former is a new process or product invented in a *new* business, whereas an innovation is the same but created within an *existing* business. Furthermore, an incremental innovation is an improvement of a product or process, and a radical innovation is essentially something brand new (Bessant & Tidd, 2011; Davila, Foster & Oyon, 2009). Clearly there are differences among researchers how to define entrepreneurship and innovation. Innovation will in this thesis be defined as a new process or product, or an improvement of existing ones and an entrepreneur will be defines as the one standing behind the creation of an innovation.

## 3.2 MCSs in an Innovational Context

### 3.2.1 The Definition of a MCS

The definition of a MCS has varied over the years and evolved to a very broad concept. Not only does it refer to decision support mechanisms but also to social controls, information related to product processes and external information about markets, customers, competitors etc. MCSs are, however, conventionally regarded as passive tools designed to assist decision-making (Chenhall, 2003). In the end of the 80's MC was debated (Nilsson, Olve & Parment, 2011). During this period the demand for a more accurate future oriented and market-based approach rose (Nilsson, Olve & Parment, 2011). Economic value added (EVA) and Balance Scorecard (BSC) exemplifies the new perspective of MC and the new way of thinking shifted from conservative accounting values to market values (Nilsson, Olve & Parment, 2011). Moreover, the discipline has not recently developed a significant amount of new approaches, rather tested those that were established in the 90's (Nilsson, Olve & Parment, 2011).

Merchant and Van der Stede (2012) claim that MCSs are essential features for managers when it comes to influencing the employees' behavior in the desired direction, in order to obtain an organizational viability. The authors argue that MCSs can contribute to help organizations by settling three problems that could comprise the need of control:

- What is expected of the employees?
- Do they get the motivation they need?
- Do they have the right resources?

According to Merchant and Van der Stede (2012) there are three ways for the management to ensure that the employees fulfill the organization's goals and strategy; results-, action- and social control. The use of results control means that the organization's objectives form the basis for the MC. The management is solely interested in whether the employees fulfill these goals or not, resulting in a high degree of freedom at work. Together with the fact that employees, generally, are rewarded when reaching stated goals, results control increases the employees' motivation. Furthermore, action control is the most direct form of control and indicates the need for the management to ensure that the employees perform certain actions and this may be through e.g. instructions and rules. Lastly, social control is when the employees control their own and the other employees' behaviors towards the value and norms that exist within the organization. (Merchant & Van der Stede, 2012)

Teece (2009) argues that the management is of extreme importance in all organizations. Here, strategy formulation is the management's most essential task (Macintosh, 1994). A well thought out strategy together with wisely used resources would reveal major opportunities of creating value (Teece, 2009). Today's businesses need to be able to sense opportunities and reconfigure and transform as circumstances demand (Teece, 2009). Hence, all businesses must act entrepreneurial in order to survive (Teece, 2009). Dergård (2006) reinforces the view of an existing link between entrepreneurship and management. He argues that when a start-up business begins to exploit its product, entrepreneurship will unambiguously transform into management.

Macintosh (1994) demonstrates a relationship between the company's strategy and the MCS. Previous research has found that strategy acts as a powerful means of control over the organization and its employees (Macintosh, 1994). In the MC process, the purpose is to ensure that the organization's strategy is implemented, additionally leading to the accomplishment of organizational goals (Anthony, Dearden and Govindarajan, 1992).

For MC to be successful, various activities must be involved and according to Anthony and Govindarajan (1998) this include activities such as planning, coordinating information, communicating information, decision-making and influence employees to change their behavior (Anthony & Govindarajan, 1998). For this to be achievable a variety of tools can be useful, such as budgeting, performance measurements, incentives and different types of corporate culture (Anthony & Govindarajan, 1998). The main focus is still that the strategy is followed, ensuring that the organization's vision will be achieved (Ax, Johansson & Kullén, 2009).

### 3.2.2 Innovation and MCSs

Teece (2009) highlights that an invention not necessarily becomes an innovation if there is no commercial use related to the invention. This is where management plays a significant role, creating products or services that actually reflect the market demand. It is the management together with the organization that they build, which creates productivity amongst the talented employees, directing their knowledge in a favorable way. (Teece, 2009)

Davila (2005a) argues that a MCS should be flexible and dynamic allowing the creation of innovations and at the same time maintain a supporting function that enables communication patterns and actions. Furthermore, the author argues that innovation is an organizational process which the management needs to embrace, rather than an external phenomena only accessible for certain organizations. Subsequent, strategic management recently increased the attention to how strategy should be designed to foster innovation. In order to achieve this, the management needs to break old habits in the strategy design and develop strategies that are meant for the future. This includes organizational structure as well as culture and how to stress innovations. (Davila, 2005a)

By observing innovation as a process the relevance of control systems transpire as a process that needs to be managed. Here, the innovation process reaches several stages and clan control<sup>2</sup> seems to be insufficient in this process. (Davila, Foster & Oyon, 2009)

Innovation is an outcome of a creative idea, which has been successfully implemented within an organization (Amabile, Conti, Coon, Lazenby & Herron, 1996). The authors conducted a study regarding how managers can drive creativity and innovation. The findings of the study were that successful innovations depend on the organization- and the supervisors' encouragement and most importantly perceived work environment. Several key factors that could be implemented by the managers to motivate individuals' creativeness, were identified. Not only selecting individuals with the ability to be creative should be endeavored when hiring. Managers also have to engender a good organizational environment (Amabile, Conti, Coon, Lazenby & Herron,

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<sup>2</sup> Clan control emerges in small groups and is characterized by shared norms, values and beliefs (Ouchi & Price, 1978).

1996). Whilst developing MCSs in innovation-intensive businesses the motivational factor should be considered (Amabile, 1997; Davila, Foster & Oyon, 2009). Thus management controls can be applied to set objectives and by some means motivate people in an organization. The goal is to create an environment that allows creativity (Davila, Foster & Oyon, 2009). Simons (2000) e.g. argues that maximum innovation is obtained when managers focus on monitoring outputs instead of processes whilst standardized work procedures, conversely, will result in a seriously compromised innovation environment. Figure 4 concludes the research presented in this section. The figure symbolizes the creation of an innovation as an outcome of three events where creativity is the first step leading to an idea. Later, an entrepreneur develops this idea into an innovation.

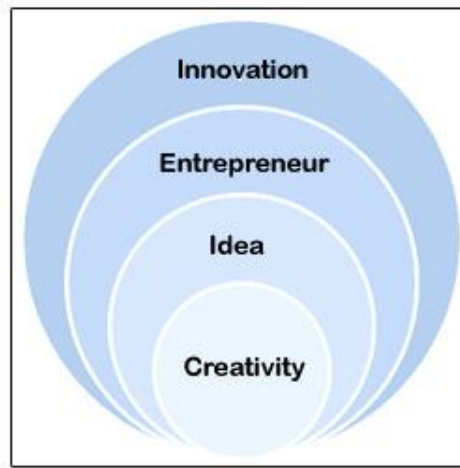


Figure 4: The three events (starting from a creative idea) that results in an innovation (illustration by the authors).

Small growth-orientated firms in the new economy were subjects of interest when Sandelin (2008) examined the control package and its consistence. In this study, he argues that functional concerns are the main area of interest whilst designing the control package. By addressing result, action and social control he wanted to explain how the control package is designed. In this package it may be several different control elements, and its overall value depends on the internal consistency (everything in the package is designed to achieve the same goal). Functional demands can for example be new product development (innovation) or efficiency. (Sandelin, 2008)

In the context of innovative businesses new product development may be the primary functional demand. Consequently, the management utilizes results control in an attempt to preserve as well as protect “the innovative, technological core of the firm from administrative bureaucracy” (Sandelin, 2008 pp. 338). He states that this is a non-administrative way to emphasize innovation. Furthermore, the author advocates that organizational structure plays a vital part in carrying out the MCS. In his article, consisting of a two case studies, he demonstrates that venture capitalists are not interested in management methods, but rather share prices. The author comes to the conclusion that the packages not solely consist of one element such as social control, but rather is a mix of all of them. Therefore, he further argues that a relatively simple package consisting of less accounting-centric elements can be equivalent to a more formal accounting-centric design, as long as the internal consistency holds. (Sandelin, 2008)

### 3.2.3 The Organizational Structure

Simons (2000) highlights the fact that the MCS needs to be aligned with the organizational structure, turning organizational design into an important concept. He recommends a decentralized organization for companies that need to make quick adjustments to changes in the market or customer demand, arguing that managers in such situations need to have a wide span of attention in order to make the best trade-offs and thereby achieving the business strategy.

O'Reilly and Tushman (2008) examined the organizations ability to change and how this actually occurs. However, their focus was on larger, established companies and as mentioned before this thesis has a perspective of smaller businesses. The findings are nevertheless interesting since they explain why upcoming new businesses have a comparative advantage against big corporations. The first mentioned criterion is how organizations exploit their assets in a profitable way i.e. if they are effective, productive, and certain and how well they reduce variance with control. The second criterion is exploration, thus the ability to explore new opportunities that include search, discovery, autonomy, innovation and embracing variation. (O'Reilly and Tushman, 2008)

Further on, Löfstål (2001) claims that an active networking facilitates the establishment of an entrepreneurial business. Teece (2009) argues that the presence of networks between firms is of critical importance when operating in a rapidly changing environment. In addition, he highlights the importance of alliances and joint ventures, claiming them to be the most efficient instruments when taking advantage of economic opportunities or circumstances (Teece, 2009).

### 3.2.4 Control versus Autonomy

Autonomy and control are according to Feldman (1989) two important aspects regarding managerial action. However, to encourage creativity within an organization, autonomy and control ought to be regulated, but the innovation must still produce a valuable result. By studying the phenomenon, Feldman concluded that it is important for the management of innovation to be involved in the process by influencing the relation between autonomy and control. When the balance between the two aspects is not achieved, a negative commitment to organizational goals is generated. Feldman further argues that an understanding of the social environmental consequences is needed in order for autonomy and control to have an accurate impact on the organization as well as the employees. (Feldman, 1989) Figure 5 demonstrates the balance between autonomy and control, implying that one always affects the other. This is the problematic imbalance that has to be considered by the manager.

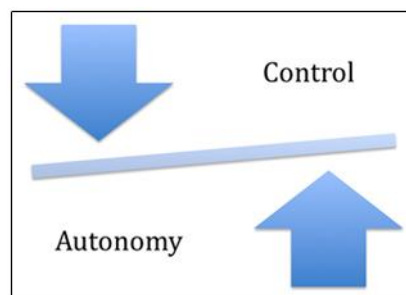


Figure 5: The balance between autonomy and control (illustration by the authors).

In a study conducted by Cornwall and Perlman (as cited in Löfstål, 2001) the authors conclude that goals and a common vision are particularly important in entrepreneurial organizations. The vision becomes a guideline and a motivational function to the employees in the organization without intruding on their freedom (Cornwall & Perlman, 1990, in Löfstål, 2001).

Not everyone, agree that empowerment, decentralization and lose control always lead to greater innovativeness in organizations according to the authors of “*The Risks of Autonomy*”. The situation control, which then is applied, could result in a lack of understanding among individuals in the organization regarding what the true objective really is. If situation control is to be successful the organization's strategy must be well communicated throughout the organization, and well understood by everybody. (Gebert, Boerer & Lanwehr, 2003)

### 3.2.5 The Managers’ Chaotic Environment

Macintosh and Quattrone (2010) present a contrasting theory to the principal agent paradigm<sup>3</sup>, which the authors refer to as *the manager as a nerve center*. According to this view, the manager is highly dedicated to his or her work, showing great enthusiasm while working long hard hours, with a motivational factor beyond self-interest. Mintzberg (as cited in Macintosh & Quattrone, 2010) shows that managers operate in an environment characterized by chaos, as opposed to the classic approach describing the managers’ work as planning and achieving organizational objectives in a structured manner. Furthermore, he describes the managers’ work as consisting primarily of intuitively spot-on-decisions together with gathering, storing, sharing and processing enormous amounts of formal and informal information. Andersson’s study (1995) enhances the picture of the intuitive manager and claims that the manager’s sixth sense and the actual provided information is of equal importance for decision-making, in small businesses.

Macintosh and Quattrone (2010) mention a study conducted by Bruns and McKinnon (1993) suggesting that the informal information sources are far more important than formal ones, turning face-to-face meetings, telephone calls, informal reports etc. into significant activities regarding the manager’s day-to-day work. Mintzberg (as cited in Macintosh & Quattrone, 2010) shows that managers experience their working life as disorder and discontinuity instead of the assumed orderly progress towards the organizational goals. Yet, his study found that the managers appreciated their chaotic environment instead of being negatively affected by it.

Andersson (1995) highlights a study conducted by Cohn and Lindberg (1972) showing that there are differences between small and large businesses and that small businesses have specific needs when it comes to management. The study comes to some interesting conclusions:

- Planning is the hardest area to manage in small businesses, because small businesses operate in an unstable environment. Subsequently, it is also more problematic to formulate a strategy.
- When small companies tries to adopt MCSs they generally tend to use fragments of MC packages used in large companies, without adjusting to the specific conditions in their own business, resulting in organizational ineffectiveness.

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<sup>3</sup> The principal agent theory demonstrates problems with asymmetric information where the agent (manager) does not operate in a way, which is intended by the principle (owner) (Stiglitz, 2008).



- One of the most important benefits related to small businesses is flexibility. Small businesses should therefore focus on a short-term perspective. Long-term perspective are costly and seldom worth the investment.
- The composition of chairmen in the board of directors is of high importance since small businesses generally are dependent on external knowledge. The board of directors has a different role in entrepreneurial companies. Here, the control mechanism as an advisory board is greater than in large companies (Sheu & Lin, 2007).
- Small businesses experiences greater problems selling their product than motivating the employees whilst the reverse is the case regarding larger businesses. (Andersson, 1995)

### 3.3 The Process of Implementing MCSs in Innovative Businesses

#### 3.3.1 The Emerging Need of MCSs

As companies grow beyond a certain size it starts getting difficult to manage activities in an informal way and the need to organize people and resources and impose some kind of MCS emerges (Davila & Foster, 2007; Simons, 2000). Yet, research regarding the founding and development of control show resistance towards control in new organizations (Cardinal, Sitkin & Long, 2004). The traditional view is that MCS are not consistent with entrepreneurship and innovation (Davila, Foster & Oyon, 2009). Control is all about eliminating uncertainties and allowing no margins regarding inefficient processes whereas taking advantage of uncertainties leads to innovations (Davila, Foster & Oyon, 2009). Furthermore, control is focused on explicit contracts, hierarchical organizations and extrinsic motivation i.e. all the features that are not associated with innovation and entrepreneurship (Davila, Foster & Oyon 2009). Therefore, control should consist solely of bookkeeping according to this view (Davila, Foster & Oyon 2009).

However, the approach to MCSs in entrepreneurial businesses has changed over the last decades highlighting the importance of accounting and control also in an innovational context (Davila, Foster & Oyon, 2009). The implementation of a MCS is, nevertheless, a complex process where control usually arises as a result of organizational imbalances (Cardinal, Sitkin & Long, 2004). Cardinal, Sitkin and Long (2004) refer to Aldrich (1999) stating that the phenomenon exists in all organizations, but is likely to be more prevailed in emerging businesses since managers in such situations need to make rapid decisions under pressure.

Control balance is an important notion in terms of organizational functioning (Cardinal, Sitkin & Long, 2004). There are, however, a number of different definitions of balance. Sitkin and Bies (as cited in Cardinal, Sitkin & Long, 2004) describe balance as the interaction between formal and informal control whilst Sutcliffe, Sitkin and Browning (2007) define balance as the harmonious use of many different forms of control. Regardless which definition is used, balance is very fragile in start-ups and small businesses and imbalances in these businesses cause greater shifts in the organizational control. However, when balance is finally re-established, through increased control, the business effectiveness will have enhanced (Cardinal, Sitkin & Long, 2004).

Macintosh and Quattrone (2010) emphasize the emergence of MC as an effect of a business that has grown remarkably. In the beginning of a venture, control is informal and communication occurs face-to-face. Often, the creator is the owner of the business and has a specific quality (e.g. technically) and employees tend to respect and awe this person. Therefore, control by the manager relies on personal relations and charismatic leadership at this early stage. When the business requires more employees the managers have to work harder and longer at the attempt of controlling the business with creativity and charisma. Nevertheless, the founder does not know everyone on a personal basis anymore, and neither the manager nor the innovation is enough to motivate the employees. This situation requires administrative systems such as a MCSs and strong leaders with administrative skills. (Macintosh & Quattrone, 2010)

There is no need of formal control in the early stage of a business; a small group of people can coordinate and control themselves by informal control such as social control and clan control (Davila, Foster & Oyon, 2009). Small firms apply social control in an informal way, driven by the interactive environment leading employees to influence each other and the management (Davila, 2005b). Furthermore, he argues that whilst the communication can be directly, without costing a fortune, this is applicable. As businesses grow in terms of number of employees, the importance of control rises and the ability to interact and communicate directly decreases (Flamholtz & Randle, 2000; Davila, 2005b).

Every organization experience growing pains during their development, signified by an insufficient organizational structure (Flamholtz & Randle, 2000). New systems, processes and structures are needed to support the new size of the organization (Flamholtz & Randle, 2000). By that, the authors do not intend to stress on bureaucracy, rather change and develop more formal systems, processes and structure. A common example of growing pains is when the employees feel overloaded, leading to denying responsibilities or doing everything on their own since there is a lack of roles (Flamholtz & Randle, 2000).

The MCs are tools that coordinate employees in the organization's direction by influencing the employees' behavior (Flamholtz & Randle, 2000). The MCs usually consist of personal supervision, job descriptions, rules, budgets and performance appraisal systems (Flamholtz & Randle, 2000). The transition between an entrepreneurial start-up and a well-managed SME is according to Flamholtz and Randle (2000) depending on the MCS. Another interesting finding in a study by Davila, Foster and Oyon (2009) is that a company's success is not solely depending on the market conditions, but the critical moment is the management's ability to shift from an informal- to a formal control. Figure 6 illustrates the form of control that, generally, is applied in start-ups and small businesses, according to research presented in this section.

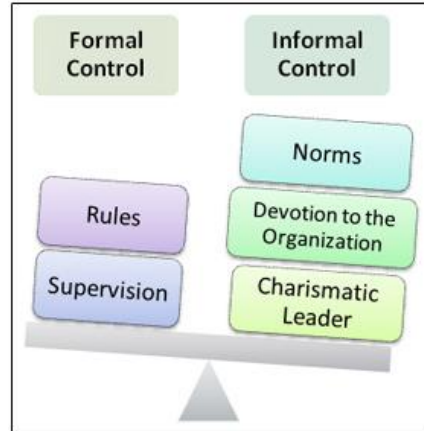


Figure 6: The applied balance between formal and informal control in start-ups and small businesses (illustration by the authors).

### 3.3.2 The Sequential Implementation of a MCS

Generally, the three first MC instruments to be implemented in start-up businesses are creating budgets, cash flow projections and sales projection; essential tools related to financial planning. Other MC tools that are commonly implemented, at an early stage, are individual human resource (HR) planning and strategic planning systems. The former includes e.g. human capital development budgets while the latter includes definition of strategic milestones and business core values etc. (Davila & Foster, 2007) Thereafter, a period follows where the company focuses on building up financial evaluation as well as human capital evaluation. The financial evaluation MC tools that are most widely used during the first six years of the companies' existence are routines related to capital investment approval, operating expenses approval and evaluation of financial performance targets. (Davila & Foster, 2007)

Davila and Foster (2007) come to some interesting conclusions. Firstly, MCSs are influenced to a greater degree, than earlier expected, by venture capitalists that are involved in the activities. Secondly, CEOs in start-up companies, who implement MCSs to a lower degree than their peers, are more likely to be replaced when the company starts growing (Davila & Foster, 2007; Davila, 2005b). Thirdly, strategic planning and HR complement each other. If strategic planning is present in a company there is a higher likelihood of the implementation of HR and vice versa. In contrast, the adoption time of HR and strategic planning will be longer if there is a financial planning system present. Lastly, there is a common view that the adoption of a MCS is related with the hiring of a specific manager. Companies, consequently, rely on the possibility to import knowledge through external sources (Davila & Foster, 2007).

Sweeting (1991) identified key features that are important for the business development in early stages, namely *flexibility* and *adaptability*. Without these features the organization has not a good chance of survival. The author states that budgeting is also an important tool for the management to use when making useful decisions regarding the future. Sweeting concludes that accounting is not of high priority in the early stage of new technology businesses. The main focus is for the business to generate viability, e.g. by the use of cash budgeting and monitoring.

### 3.3.3 MCS and the Product Life Cycle

Dergård (2006) describes the product life cycle as consisting of three phases; the discovery, exploitation and management phases. He argues that there is a correlation between the use of accounting information and the phase that the company is in. Furthermore, Macintosh and Quattrone (2010) claim that the MCS applied also is connected to the different phases.

In the discovery phase, the business focus on R&D, striving to develop a product or process yielding competitive advantage (Macintosh & Quattrone, 2010). Accounting information is mainly used to discover new business opportunities but also as a basis for decision-making (Dergård, 2006). The information is past-oriented and non-financial and considers e.g. marketing, political changes, technological development etc (Dergård, 2006). Macintosh and Quattrone (2010) state that the MCS should focus on evaluating business prospects that seem promising. One of the first and most important business areas to describe is related to customer mapping (Dergård, 2006).

In the exploitation phase, focus change to product specification and development, finding new business partners, further research etc (Dergård, 2006). The business seeks to build strength by e.g. vertical integration, investment in product facilities, acquisition of technology and joint ventures (Macintosh & Quattrone, 2010). Accounting information is used to facilitate decision-making also in this phase but future oriented and financial information becomes more important (Dergård, 2006). Future-oriented information is primarily used regarding selling price, sales volume, revenues and costs whilst past-oriented information focuses on internal capacity, market structure, production processes and product potential. The MCS should be focused on getting in-depth signals from the market regarding the product being developed (Macintosh & Quattrone, 2010).

In the management phase, the primary objective is to enhance profit performance and increase market share (Macintosh & Quattrone, 2010). Accounting information is used primarily for evaluation though it is also used as a basis for decision, but to a lower extent than in the former phases (Dergård, 2006). In the management phase, financial information is preferred and primarily related to sales and revenues since the business is focused on revenue-generating activities (Dergård, 2006). Especially contribution margin is widely used as a measure of revenues. Information related to costs is not of equal importance in this phase, because the business is focused on revenue-generating activities. (Dergård, 2006) Product differentiation becomes a key factor in the business strategy, requiring further capital injections (Macintosh & Quattrone, 2010). Therefore, a suitable MCS aims at measuring the residual income (i.e. profits after an interest charge on invested capital), in order to identify the more profitable strategic choices (Macintosh & Quattrone, 2010). Figure 7 demonstrates the three phases in the product life cycle identified by Dergård and his explanation of what accounting information that is of specific interest in each of the phases.

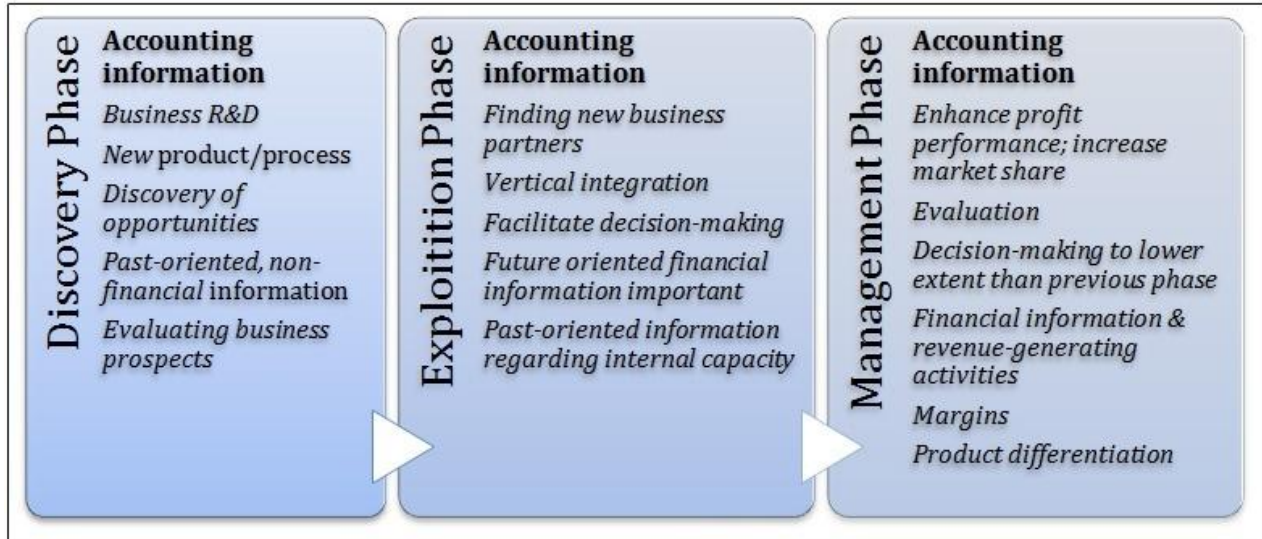


Figure 7: The use of accounting information with regard to the three phases of the product life cycle (illustration by the authors).

However, Macintosh and Quattrone (2010) highlight some problems connected to the product life cycle approach. Firstly, it is difficult to identify the exact position of the product. Furthermore, there are companies specializing on products in just one phase. Lastly, multinational corporations generally strive to create a portfolio of products, spanning over the entire life cycle. Nevertheless, Macintosh and Quattrone (2010) conclude that the product life cycle approach can constitute a valuable basis when choosing the strategic focus and developing the management accounting and control system (MACS).

### 3.3.4 Venture Capitalists Influence on the Implementation of MCSs

Generally, an entrepreneur's idea cannot develop into a business without outside capital (Admati & Pfleiderer, 1994). Venture capital is a professionally managed pool of capital that is invested in equity-linked securities of private ventures at various stages in their development (Sahlman, 1990 p. 473). Funds from external firms i.e. venture capitalists, always leads to asymmetric information where the entrepreneur at the first stage has inside information, since the venture capitalist is not yet involved (Admati & Pfleiderer, 1994). Thereafter, Admati and Pfleiderer (1994) claim that the venture capitalists obtain greater control, because the firm provides more than just funds e.g. knowledge. The authors highlight the principal agent aspect of the matter, where the venture capitalist is the principle and the manager of the business is the agent. According to the agency theory, both parties are motivated only by self-interest (Macintosh, 1994). The venture capitalist initially offers fund and nothing more. However, the venture capital firm needs to ensure that the manager acts on the behalf of the principal's best interest (Macintosh, 1994). Jensen and Meckling (as cited in Macintosh, 1994) state that undesirable behavior can be limited by incurring accounting and auditing, monitoring costs and establishing an incentive scheme. The venture capitalists commonly take on the role as a strategic advisor, access potential clients and become a partner in order to control the business further (Sahlman, 1990; Sheu & Lin, 2007). In order to cope with a highly uncertain environment and information asymmetries, standard operation procedures and contracts have evolved between venture capital firms and entrepreneurs (Sahlman, 1990). According to Sahlman (1990) there are four ways for

the venture capital firms to deal with this problem. Firstly, by portioning out the investment capital to the entrepreneur the awareness of its scarcity arises. By this method the entrepreneur is encouraged to use funds effectively, whereas venture capitalists often apply strong sanctions if the capital is misused (Sahlman, 1990). The biggest threat from the venture capitalist is to abandon the venture, which additionally gives other capital suppliers the impression that this particular business is a bad investment. However, entrepreneurs generally accept this staging of capital because they believe in their ability to meet the targets (Sahlman, 1990). Secondly, devising a compensation scheme to venture managers give them incentives to decrease their risk tolerance (Sahlman, 1990). Thirdly, an active involvement by the venture capitalist is generally always the case, since contracts cannot regulate every conflict between the venture capitalist and the entrepreneur. Often, the venture capitalist becomes a member of the board, a compensator of key individuals, a help when recruiting, raising capital, setting tactics and strategies and working with suppliers and customers (Sahlman, 1990). Every involving action by venture capitalists is correlated to the willingness of affecting the success of the business and to increase the return on investment (Sahlman, 1990). The final part addresses methods to convert holdings to cash or equivalent and this is specified in contracts (Sahlman, 1990).

Davila (2005b) claims that venture capitalists, through their intensive investing, develop knowledge about growing firms and branches. Unquestionably, the information becomes valuable to growing firms that obtain venture capital funds, since it leads to an increased business development. Furthermore, Davila (2005b) argues that the implementation of MCSs is more likely to occur if the venture capitalists consider it necessary. Additionally, results control appears to evolve at this stage as the venture capitalist has a specific financial interest in the firm. This interest is executed through motivating employees, with financial and non-financial objectives, in order to obtain the desired results. (Davila, 2005b).

## 4. Empirical Findings

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*This chapter initially provides information about the seven companies, which was gathered from interviews, the companies' websites and the annual reports. Thereafter, the chapter is divided into five sections; background of the businesses, organization, basic premises for the creation of the MCS, formal control and informal control. The chapter ends with a venture capitalist's perspective of the implementation of control in innovative businesses.*

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### 4.1 Presentation of the Seven Companies

#### **Company A**

The present CEO founded Company A in 2007. The company has developed an advanced technology that generates high quality digital audio. The company is working on licensing the technology to manufacturers of products with acoustically poor sound sources e.g. cell phones and laptops. So far, the speakers are sold in nine countries. The vision is to deliver the best in digital audio. The CEO of the company is in his late twenties and has a degree in engineering. Company A has been incubator financed until the venture capitalist *Innovationsbron AB* invested in the businesses. The respondent experienced enhanced requirements, in terms of developing the business structure and presenting more extensive accounting information, as a consequence of the take-over.

#### **Company B**

Researchers from the Royal Institute of Technology (KTH) founded Company B in 2006. The business develops and distributes antibodies for specific human proteins. The business is a result from an earlier research project, the Human Protein Atlas (HPA) project. The company's vision is to create a protein that could work against all antibodies. Additionally, gaining a larger market share in the future. The CEO of Company B is in her late forties and is one of the founders of the company. She has a PhD in engineering and has been researching at KTH. In addition she has a solid experience in marketing and business development from previous workplaces.

#### **Company C**

Company C was founded in 2009 as a result of ongoing research projects. The company produces laminin-based substrate solutions for cell growth. The business is unique, by being the only manufacturer in the world producing recombinant human laminins. The company's vision is to become a large Swedish listed BioTech company. The vision will be reached, primarily, through organic growth. The CEO is in his thirties and is one of the founders of the company. He has an international academic background including a degree in molecular and cellular biology and a MBA.

**Company D**

The CEO founded Company D together with his partner in 2006. The business has developed a high-tech camera, making it possible to prevent damage to property, infringement and theft. Company D offers a comprehensive security solution to enterprises, schools, local authorities etc. The company's vision is to become a global virtual emergency center service. Today the company operates on the Swedish, Finish and Polish market. The CEO is in his thirties and has a degree in engineering. The company has been incubator financed until the venture capitalist *Innovationsbron AB* invested in the businesses.

**Company E**

In 2004 Company E was established from ongoing research conducted at Chalmers University of Technology in Gothenburg. The company has developed an implant coating which protects implants and increases the osseointegration, i.e. making the healing of the implant faster. The company is in the development phase, aiming at establishing the product on the market in 2013 and obtain a positive cash flow in 2014. The vision is to become a partner to the leading implant companies e.g. Metronic and Johnson & Johnson. The CEO of the company is in his late thirties and has a academic background in Business. He has been working with technology-based start-up companies for several years and has the last four years been the CEO of Company E.

**Company F**

Company F was founded in 2007. The business is developing technical solutions to enhance the speed and the quality of magnetic resonance imaging (MR). The vision is to be perceived as a frontrunner in creating a paradigm shift of magnetic resonance imaging. The CEO is in his late thirties and has a MBA. He has previous experience from working in a multinational company as well as developing his own small consulting firm. He has been the CEO of Company F since December 2011.

**Company G**

Company G was established in 2008. The company develops new technologies for protein production and vaccines, aiming at making today's vaccines more efficient. The company's vision is to become a key player in innovative platforms for protein production and vaccine development. The CEO of the company is in her late twenties and has an international academic background, and degree in Business. She has gained management experience from being a trainee at a big pharmaceutical company. Thereafter, she worked as a product manager for six month. Meanwhile, the founders of Company G contacted her. She has been the CEO of the company since November 2008.

Table 1 demonstrates some key financial figures of the companies. Three of the companies have broken financial years whilst the others use the calendar year. The number of employees ranged between three and fourteen, during the financial year studied. Moreover, the turnover, net income, total assets and solidity varied considerably between the businesses. Noteworthy is that solely one company had a positive net income.



Table 1: Key financial figures of the seven companies.

Company	Financial Year	Age (Years)	Employees	Turnover (KSEK)	Net Income (KSEK)	Total Assets (KSEK)	Solidity (%)
A	2010/2011	5	4	325	-3 693	4 038	9
B	2010	6	14	25 824	4 449	28 381	89
C	2010/2011	3	4	993	-1 400	19 724	8
D	2010	6	11	5 877	-2 565	11 784	30
E	2010/2011	8	6	336	-3 220	9 947	82
F	2010	5	5	827	-785	3 884	68
G	2010	4	3	110	-1 020	1 333	84

## 4.2 Organizational Structure

A strong majority of the respondents state that the employees have the opportunity to be involved in the decision-making process. Solely one of the CEOs states that he is the one taking the final decision, even though employees are welcome to make suggestions. The respondents state that this form of organizational structure makes the employees feel more dedicated to the organization.

The number of employees in the interviewed companies varies today between five and nineteen, causing the organizational structures to vary as well. Company A and G are two of the smaller businesses in terms of number of employees and turnover. Figure 8 and 9 show the organizational charts for the two companies respectively. The structure of Company A constitutes of two divisions (speaker division and technology division), on the broadest level. However, the remaining structure is far more complex than the structure of Company G, which follows naturally from the fact that Company A has twice as many employees as Company G (ten and five, respectively).

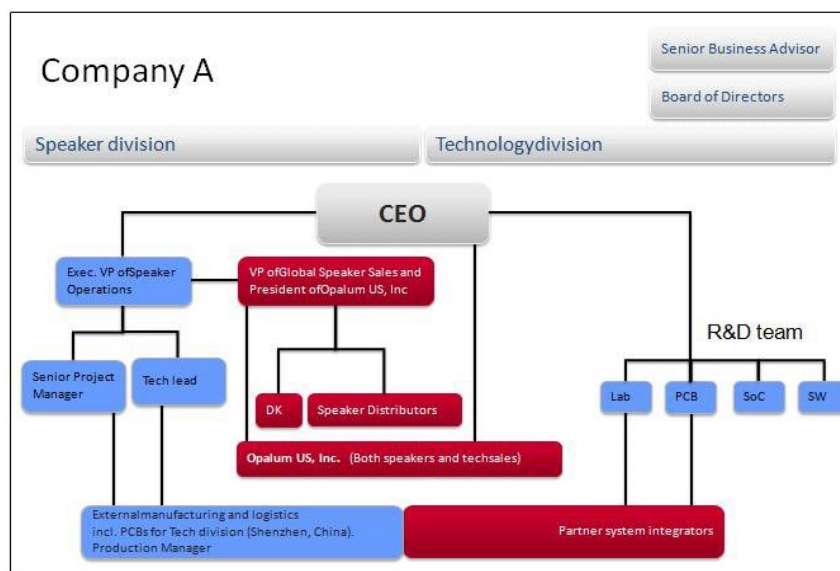


Figure 8: The organizational structure of Company A (illustration by the CEO of Company A).

Regarding Company G, it is noteworthy that a university, instead of the company, employs two of the scientists that are working for the business. However, both of them were involved in the founding of the business and still own parts of the company. Today, their roles are to act as coaches, tutoring the other employees.

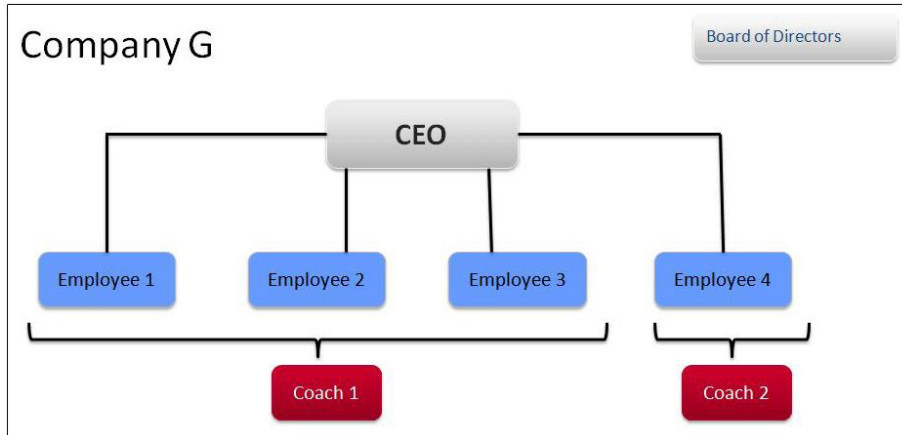


Figure 9: The organizational structure of Company G (illustration by the authors).

Company C, E and F are the medium sized businesses of this study, in terms of number of employees and turnover. Figure 10, 11 and 12 show their organizational structures respectively. Company C is divided in three functional units as figure 10 demonstrates. However, the CEO expressed that employees can be involved and work in all of the units. Furthermore, the goal is to have monthly meetings within each unit, but this is not actualized yet.

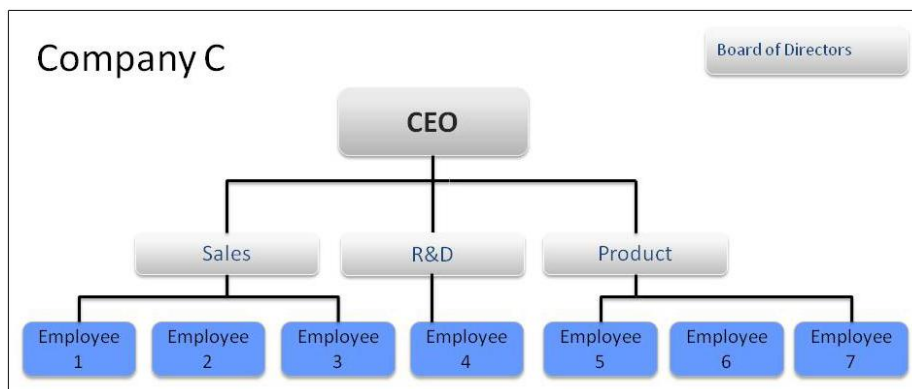


Figure 10: The organizational structure of Company C (illustration by the authors).

Company E consists of seven employees including the CEO. The company is structured on a project work basis, which is an outcome of several discussions regarding how the employees wanted to organize their workplace. All of the employees have a certain title, and are constantly working in projects leading to the creation of small project groups. The CEO states that the employees are not able to advance in the organization at the moment. Consequently, the only way to change work position is to take the opportunity when someone decides to leave.

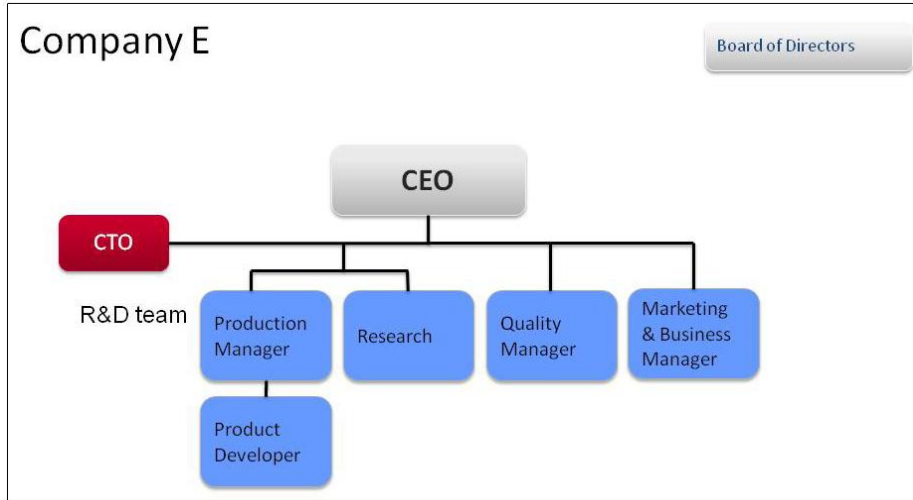


Figure 11: The organizational structure of Company E (illustration by the authors).

There are five employees in Company F including the CEO, and they have five different roles, as illustrated in figure 12. At busy times the company uses temporary workers.

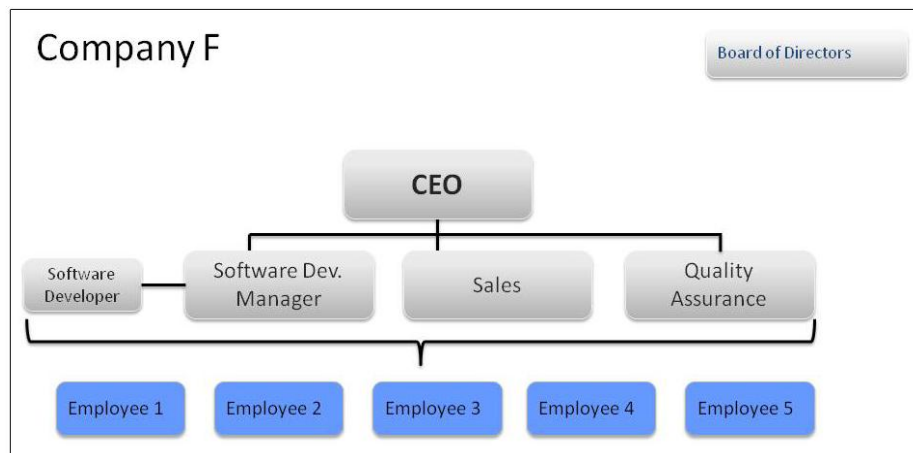


Figure 12: The organizational structure of Company F (illustration by the authors).

Company B and D are the largest businesses in this study, regarding number of employees and turnover (15 employees in each company). Company B is divided into three functional units; marketing, R&D and production. Those responsible for each unit are also included in the management group. Figure 13 shows the organizational structure of Company B.

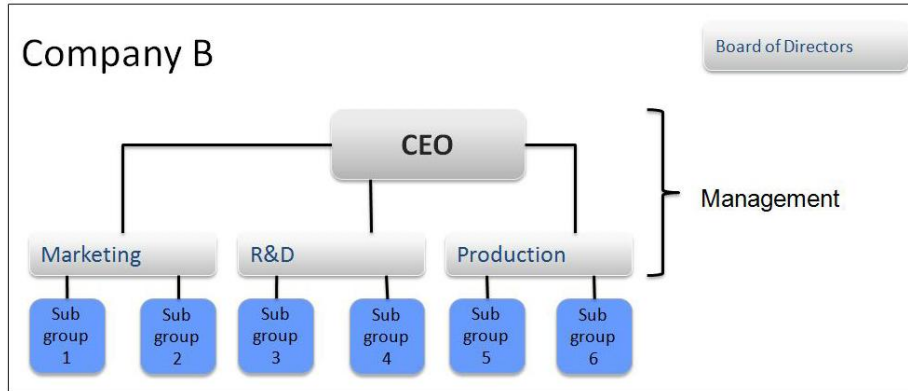


Figure 13: The organizational structure of Company B (illustration by the authors).

The CEO of Company D is controlling the company with guidelines from the board of directors and the venture capitalists. Furthermore, the vice president (who is also sales manager) and the other managers (controlling partnership, customer relations and system development respectively) are working close to the CEO, however, expected to do so independently. Figure 14 shows the structure of Company D.

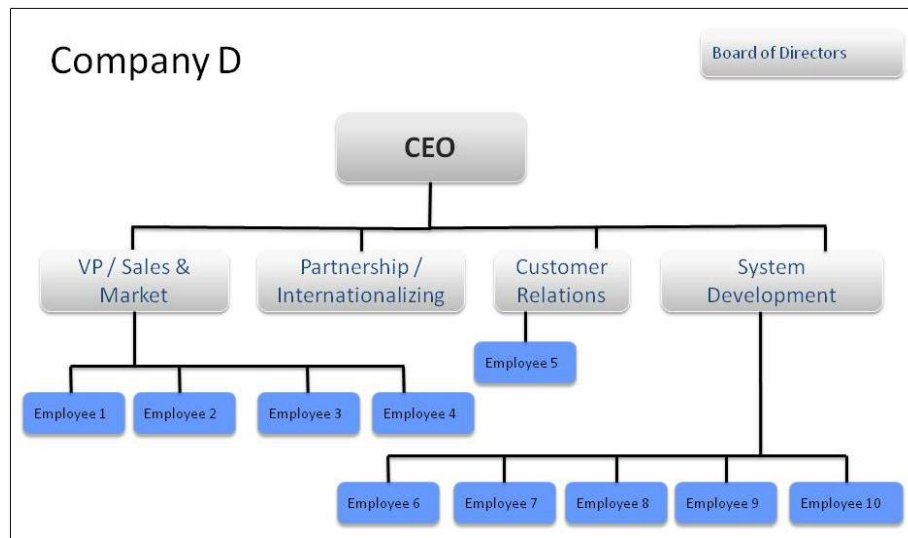


Figure 14: The organizational structure of Company D (illustration by the authors).

## 4.3 Basic Premises for the Creation of the MCS

### 4.3.1 The Companies' Visions

Company B states that the vision is a way to express the business' goals in terms of value added to the customer. However, the majority of the respondents state the vision as being able to attract new key customers, especially the established retailers in the sector. Additionally, developing favorable distribution channels is perceived as important. Nevertheless, all of the respondents describe their innovations as significant in a larger context i.e. having potential to be globally successful. In fact, some of the respondents demonstrate the view of the global importance in their visions e.g.:

*“We are perceived as a frontrunner in creating a paradigm shift of magnetic resonance imaging.”*  
 (- The CEO of Company F)

When the respondents were asked about the awareness and understanding of the visions and organizational goals among individuals within their organization, the answers varied. Generally, the vision is perceived as of high importance by most of the interviewees. Several respondents highlight the importance of the employees' awareness of the vision, since an understanding of it keeps them motivated. The CEO of Company C communicates the vision explicitly on all the monthly meetings. However, he states that the employees not necessarily need to know the vision by heart. Instead, it is perceived as a diffuse goal to strive against. However, the most common approach amongst the companies is to break down the companies' visions into sub targets, followed by individual activities, in order to get all employees to strive for the same goal. Consequently, employees do their job knowing that they assist the business in reaching the vision. Company B is one of the companies that involve the vision in their daily activities. The respondent from the company highlights the significance of creating individual activities that are in line with the broad objectives of the business. Company B's goals are communicated in the quarterly based projection meetings and evaluated as objectives after every third month. Some of the respondents emphasize the importance of participation amongst the employees, when setting the vision. This assures that the employees are well familiar with- and supportive of the vision.

However, not all of the respondents are supporters of an intense focus on the business' vision. In contrast, one of the interviewees stipulates that it is of minor importance whether everyone agrees with the vision or not. The respondent claims that at least one employee does not at all support the vision. The CEO does not perceive this as a problem though, since he has the final say in every question. Nevertheless, the informant welcomed the idea of a better understanding and an increased integration of the vision in the daily activities. Another of the respondents states that the company may need to communicate the vision more clearly.

*“We talk about the vision occasionally, but we may need to specify and assure that everyone is aware of and can work against the same vision.”*  
 (- The CEO of Company A)

Company G discusses their vision on a yearly basis and the employees are expected to work in accordance with the vision due to everyone's willingness to develop the business' unique product.

### 4.3.2 The Companies' Strategies

A common formulation of the strategy is to be more effective and flexible than the competitors. Five respondents highlight the significance of customer relationships. The market demand is not always corresponding to the product that is developed. Consequently, the businesses have to continually identify the existing demand and shift focus in the development of the products, if necessary.

*“You must always try to be in the forefront of development and trying to stay one step ahead.”*

(- The CEO of Company C)

Company D points out the importance of obtaining a position of trust in the chosen business niche. Several of the respondents additionally state that the distribution channel and vertical integration is of high importance as well as finding new business partners through e.g. joint ventures. Furthermore, product development and research is emphasized. Generally, a common goal is to make the business' innovation (or product) more exposed on the market. Company A has a distinct strategy of establishing a new brand for their speakers, in order to make the technology recognized more easily by the end customer. In contrast, Company B focuses on marketing in order to achieve the same result. Company E that has not yet launched its product on the market, primarily focuses on further R&D development as well as evaluating the business prospects. The CEO of Company E is frequently visiting international events and meetings in order to evaluate business opportunities.

Some of the companies, e.g. Company F, have employed a new CEO in order to develop the strategy. The CEO of Company F states that developing the strategy is the most important and challenging task of his work as a manager. He places high focus on anchoring the vision in the business and breaking down the vision into more concrete goals.

A primary goal of this thesis was to understand if the MC was adjusted in accordance with the rapidly changing environment. Therefore, the respondents were asked to demonstrate how they handle external forces, opportunities and threats. The overall approach regarding maintaining competitive advantages is to patent the technology that forms the basis for the businesses' innovations. However, not all areas of the production are easy to protect by patent e.g. some research results or more general product processes. The companies try to keep these areas secret, to the utmost possible extent. In contrast, a common approach amongst the biochemical companies is to license key features related to the technology in order to protect themselves from piracy.

Generally, the respondents claim that the initial innovation will be insufficient in the future. Further innovations are needed in order to continue being attractive on the market. Therefore, most of the companies are working actively on maintaining key-knowledge and a creative environment inside the business. However, several respondents highlight the importance of progressing slowly, focusing on profitability. Significant for a majority of the companies is that the CEOs place equal focus on long and short run perspectives when it comes to strategy. Both views are perceived to be of high importance.

## 4.4 Formal Control

### 4.4.1 Budgeting and Product Calculation

The respondents were asked how they control the company and assure that it is developing in the intended direction. Company A, B, and D control the organization with MC tools such as budgeting, planning and monitoring. Company B stated that budgets are utilized to revise the finances and evaluate the effectiveness in sales, comparing what they are doing against what they planned to accomplish. Furthermore, the respondent advocates that they do this on a monthly basis. Company D indicated that the utilization of budgets in the beginning of the venture process was a result of requirements from the board of directors and venture capitalists. This was, according to the respondent, to have something to present in order to receive additional or new funds. The financial reports are in general sent to the board of directors once a month and sometimes even the venture capitalist demand a copy of the statements every now and then to control the company's situation. One of the respondents only uses budgets as a tool to control whether there is room for investments and operational activities or not. During the interviews the respondents expressed that budgets often are altered and not expected to achieve without complications. Two of the companies quote that they always overestimate their sales. This is, according to the respondents, mandatory since the investors want an optimistic forecast. According to the informant, a consequence of this method is unreached objectives, which in turn make stakeholders disappointed.

### 4.4.2 Incentive Programs

Regarding what the CEOs expect of the employees, the interviewees agreed upon completing their work i.e. achieving organizational objectives. Generally, all of the respondents considered that the employees are motivated at work. Further on, only one of the companies expressed the lack of resources as a problem affecting the employee's ability to perform. Company B specifically stated that planning and focus were a part of the motivational process. The informant claimed that the business regularly review if they have the right competence and resources within the organization. If a lack of competence is identified, the company will defray the necessary education.

Several of the interviewees expect the employees to complete their work at their best manner, deliver results and develop as persons. The respondent from Company D expresses this view by stating that the business expects its employees to possess a problem solving ability and to be ambitious as well as happy to assist each other. Moreover, the CEO states that the customer always comes first. Furthermore, the respondent hopes that the employees are motivated but addresses that a survey needs to be conducted to ensure that he is right. Company G claims that the employees not only have to complete their tasks, but also they have to be able to do it independently. The CEO appreciates employees who take initiative, and has therefore created an environment where the employees set their own objectives, similar to project planning. However, the CEO is regularly evaluating their performances. Regarding motivation, the CEO expressed that all the company's employees are motivated and that scientists, especially, tend to be motivated through curiosity.

Company B is familiar with incentive programs, and they have been used with success for several years. However, the program is based on the business' goals and objectives instead of individual ones. The CEO of Company E states that he also has a sales role, obtaining a bonus if he successfully increases the sales. Four of the firms apply provisions and bonuses to their sales personnel. Recently, one company shifted from performance options to collectivity bonuses divided among the employees. Those bonuses are stated by the overall organizational profitability. Further on, the utilization of bonuses is, in one of the companies, related to employees who create patents and innovative ideas. One of the informants clearly points out the importance of an individual approach towards everyone in the organization. Here, pushing and supporting the employees are as least as important as monetary incentives.

Company D is at this point unsure if the utilization of bonuses and incentive programs are beneficial to the organization in the long run. He demonstrates the indecency with the CEO being evaluated by EBITA, leading to unwillingness to employ. In his point of view, incentives based on certain or "wrong" key performance indicators will end in sub-optimization. Therefore, he promotes giving the employees what they are worth, and not giving them a reason to consider money as an issue, however, within boundaries. One of the primary reasons to why Company D was created at all was the unsatisfying starting salary offered to newly examined engineers.

Several of the respondents highlight the importance of the employees' own incentive, by being inspired by the organizations objectives and the business development. Additionally, the respondent of one of the companies states the importance of encouragement, which he believes results in employees doing what is expected of them without him being forced to control them.

### 4.4.3 The Basis for Decision-Making

The respondents were asked what exactly they use as a basis for decision-making. The majority of the CEOs claim that they primarily use environmental or market demand analysis as a guidance when making decisions. For example, Company F utilizes Porter's Five Forces as well as the PESTLE analysis in order to determine strategy and the desired direction of product development. Company E and C use no accounting information at all, as a basis for decisions. The respondent from Company E states that it is meaningless to focus on accounting figures since they are all negative. Therefore, the company only produces figures that are required by law. He further claims that the investors' primary interest is the business plan, which provides more interesting information when it comes to evaluate the prospects of the company. However, the company uses non-financial quarterly goals and budgets to run the business. The respondent at Company A primarily uses sales figures whilst Company F utilizes cash flows. Company G uses cash flows, selling price and sales volume.



#### 4.4.4 Performance Measurements

*“All employees must work with activities that are in line with the broad objectives of the company.”*

(- The CEO of Company B)

The majority of the interviewed CEOs claim that the organizations establish targets on quarterly or yearly basis, often with assistance by the employees. Generally, the CEOs do not care about how the objectives are accomplished, as long as the employees can present satisfying results. Three of the respondents clearly pointed out the effectiveness in weekly-meetings, where the workload is summarized. This leads to an awareness of what is expected from the employees. One of the informants recently created small groups within the organization. Ever since, he has experienced that members of the small groups control each other.

All of the seven respondents highlight the awareness of the company’s liquidity. In order to make profit, several claim that they utilize sales targets. Three of the informants mention setting up specific milestones and completing a certain number of activities as more important than the traditional results measures. Additionally, one of the respondents exemplified partnerships and projects as specific activities. He claimed that stating a certain number, and striving to complete those specific activities, would benefit the organizational objectives. Six of the CEOs pay less attention to solidity, and the general opinion is that it is irrelevant in these businesses.

Several of the respondents stated that costs related to employees are predictable in human capital-intensive businesses, concluding that the production of cash flow is interesting both to the companies and the venture capitalist. Company B stated that sales were monitored after selling the first product. Furthermore, sales targets established by the management and approved by the board of directors work as a driver to increase the turnover in this company. Company D does not use key performance indicators at all, since they are negative. The informant considers it to be costly and accounting information is solely produced when someone requires it. When this is considered necessary, an external party approved by the parent company is hired.

One of the respondents clearly pointed out the ineffectiveness in evaluating the financial reports, since they not yet operate with their product or process on the market i.e. no revenues whatsoever exists. Even some of the companies that recently obtained positive cash flow emphasize the time consuming effort with evaluating key performance indicators as solidity. Company D stated that he rather focus on sales i.e. calling potential customers than analyzing solidity. The general opinion among the respondents in the study was; “why pay attention to key performance indicators when they are negative”. Out of seven respondents, only one states that solidity is of interest to evaluate the survival of the company.

#### 4.4.5 Distribution of Work and the Recruitment Process

A majority of the respondents state that the employees develop their own working schedule and that the organization is built on trust. However, the employee with the formal responsibility is not always the person executing the work. In one company, the CFO does not really work with economics (instead he works with sales), being appointed CFO merely because the business needed someone with that title (in order to become certified). Several of the respondents express that they have a good relationship with the colleagues. However, one of the respondents states that it is important to maintain a certain distance to the employees when in the position of CEO.

The work burden for the CEO varies depending on the organization, but several of the respondents' express that the workload by far exceeds a regular nine to five job. The CEO of Company E states that there is no limitation regarding how much work can be done, however, it is important to prioritize the most essential tasks. Another CEO states that the work burden became too heavy for him to handle, forcing him to hire more staff in order to be able to control the situation and the organization.

When the organizations recruit, they look at different attributes, depending on the job to be filled. Some of the respondents highlight the importance of high competence when hiring a scientist for a research position. Overall, personality is highly valued in all of the companies; fitting among other individuals in the organization seems to be crucial in all of the interviewed companies. Only one of the companies' claims that creativity is a factor they look for when they recruit. For Company E, it is important to have a mix of people in the organization. In the early stage of the company, they were only a group of men with an age difference of three years, but today they have an equal gender representation. Company E rectified this through no longer recruiting from its own network but instead enlists a recruitment company to assist with the process. Company E advocates the option to hire a consultant to contribute with external knowledge. However, the CEO highlights the importance that the consultant also educates the staff, for the knowledge to stay within the company.

### 4.5 Informal Control

#### 4.5.1 Internal and External Communication

Some of the companies describe an increasing amount of information circling inside the business, highlighting the need to improve the communication in the organization. Therefore, some of the previous mentioned claim being in the process of implementing more structure to do so. Other respondents are more organized by having weekly and monthly meetings. Company E advocates the importance of meetings, stating that the company has Monday meetings for all the employees as well as weekly meetings for the different units (i.e. marketing and technology). The CEO of Company B states that the employees have group meetings after the formal meetings, aiming at discussing how to reach the goals stated for the three upcoming months.

A majority of the respondents indicated that the communication with the board of directors works well, primarily by email and board meetings. One of the respondents states that they have in between four to six board meetings per year, but if it considered necessary the meetings are held more frequently. One of the informants expressed that discussions may arise between the scientists and the board, because of different opinions regarding the organization.

### 4.5.2 Business Culture and Controlling the Employees

Several of the respondents state that they know their employees well, describing the business culture as friendly. However, the interviewees highlight the necessity of maintaining the formal roles, which is achieved by keeping some distance.

*“You know everyone on a somewhat personal level, but you should keep some distance as a CEO. For example, I am not friends with anyone on Facebook.”*  
(- The CEO of Company C)

The atmosphere in the companies is generally technology focused. One of the informants claims that there is a certain kind of persons working in entrepreneurial organizations. According to the CEO of Company B, the big challenge in an innovative environment is to evaluate the commercial value and the ability to commercialize new ideas. The CEO of Company D encourages initiative and responsibility in order to create a culture where all the employees can express their point of view. He states that penalizing failures should be avoided since it decreases the employees' willingness to explore new opportunities. Several of the companies express the importance of freedom with responsibility within the organization.

*“An innovative environment is created with a vision, freedom and trust.”*  
(- The CEO of Company C)

The respondent from Company G expressed that employees' curiosity and willingness to focus on their tasks are important to maintain creativity in the organization. Furthermore, the interviewee highlights the significance of employees' involvement in the organization, in order to get everyone to strive towards the same goals. In Company B the employees plan their overall objectives within small groups. However, those objectives have to conform to the broad organizational ones. Furthermore, the objectives are reviewed and evaluated every third month. The respondent from Company B believes that this process contributes to awareness of the company's focus and goals.

Company A states that critics should be communicated in a constructive way to avoid negative control. Furthermore, the respondent claims that everyone in the organization is excited to succeed, which enables autonomy. The respondent from Company C demonstrates an attempt to control the employees by influencing their inner motivation in a satisfying way. The respondent from Company G differs among the interviewees, claiming that the employees have to run their opinions regarding change by the CEO before implementing it in the daily work. It is up to the CEO to decide if those changes would be profitable to the company. However, the CEO claims that there is no need to further control the employees. Company F pointed out the problematic situation with controlling creative individuals, and claims that they have a tendency to do the pleasant activities before the sometimes more important tasks. However, they do have a control

system for working hours, but that is as long as the control mechanism reaches. Three of the respondents state that it is easy for the CEO to control if the employees are working because of the low number of employees and the small workspace.

The respondents were asked if they considered it to be hard to control the employees and their work effort without a negative outcome. Several of the respondents agreed upon the presumed negative effects of control. The CEO of Company G demonstrates that creating patents, publications and interesting projects, drive scientists. Therefore, the respondent further expressed that an issue could be that the scientist wants to research in a field where there is no market demand what so ever. The CEO states that one of the hardest tasks is to control the scientists, without killing their motivation to continue valuable research vital to the company.

Company D advocates that control is time consuming and negative. The respondent states that encouraging independent thinking is a part of the CEO’s job. Furthermore, the informant states that one have to accept that the decisions sometimes may be wrong. However, a positive outcome is that the knowledge has emerged. Nevertheless, the informant shared a negative experience related to the use of trust. One of the employees of the company was supposed to work in another city. Unfortunately, this individual saw an opportunity to work exclusively with a side-business whilst having full time salary from the interviewed firm. This activity was later discovered by the CEO and caused the company huge economic losses.

#### 4.5.3 Support from the CEOs, the Board of Directors and Networks

Several respondents highlight the importance of motivating the employees in order to reach the companies’ visions. Since all the CEOs expressed an ambition to encourage employees’ initiatives and inner motivation as well as to maintain a creative environment, they were asked how they regarded themselves as leaders. Table 2 shows some of the CEOs self-perceived characteristics. (Unfortunately, not all of the respondents provided us with an answer to the question.) These characteristics form the basis for the managerial support affecting the employees in the companies.

Table 2: Some of the CEOs self-perceived characteristics.

Company	The CEOs self-perceived characteristics
A	Optimistic, even when facing setbacks. Never gets stressed. Pressure only makes him more effective. Wants to improve his ability to create structure inside the organization.
C	Good at finding the right persons when recruiting. Wants to improve his ability to delegate, in order to decrease his work load.
D	He is persistent and a visionary.
G	She is perceptive, straightforward and encouraging. Wants to improve her ability to set boundaries for employees.

Commonly, the respondents advocate that the board of directors approve and help to improve the organizational goals. Furthermore, the board of directors and the venture capitalists monitor and evaluate the business’ net income, cash flows, costs, revenues etc. Company G agrees upon this view. However, the informant from Company G highlights that the board of directors appear to be commercial whilst scientists are not, evolving into frequent argumentations. Three of the

respondents express that the owners influence the companies to a great extent, through their seat in the board of directors. Nevertheless, claiming that the owners also contribute as a supporting organ. Generally, the board of directors becomes a surrounding board for the companies. In addition, the respondent from Company A claims that an active board of directors assists the company in adjusting to the external environment, by being able to take difficult decisions. Being constantly updated to the market constitutes a prerequisite in order to survive in today's hostile, economic environment, requiring tough decisions and hard work. The hardest question is, however, to know which direction to take. This is where the board of directors enters the picture, providing valuable support.

Two of the interviewed companies are members in a network, and one of them considers it to be very valuable since the network e.g. provides the business with important branch-specific information.

## 4.6 The Venture Capitalist's Perspective

### AB Chalmersinvest

#### 4.6.1 Background of the CEO and AB Chalmersinvest

The CEO of AB Chalmersinvest has a degree in mechanical engineering from Chalmers University of Technology as well as a doctorate in mechanical engineering. After several years of research abroad, the respondent started to work for Asea AB (ABB AB today). In 1992, he made his first investment and has ever since worked at various investment companies such as Chalmers Industriteknik AB. Further on, he was involved in the founding of InnovationsKapital. Since 2000, he has exclusively worked within venture capital.

AB Chalmersinvest was founded in 1896 as a subsidiary of Chalmers University of Technology AB. In 2010, the company's turnover was 3.5 MSEK, having two employees, total assets of 45.7 MSEK. The business' primary objective is to develop and finance technology-based start-ups within the university college sphere in Gothenburg. AB Chalmersinvest provides capital and expertise, through a network of board directors, giving the start-ups an opportunity to grow and find further financing.

#### 4.6.2 Management Control at an Early Stage

The size of the companies that contact AB Chalmersinvest differs. In contrast to recent decades, companies may have grown somewhat already and sometimes consist of up to five employees. Earlier, it was, generally, one or two founders seeking investment capital. Furthermore, the interviewed respondent highlights the competition *Venture Cup* as a true venture creator and a stepping-stone for entrepreneurs. He states that the quality of the ventures developed in the competition, is very high due to the entrepreneurs' ability to write business plans. Therefore, the competition is of interest to venture capitalists since it sometimes reveals new, promising investment opportunities.

According to the CEO of the venture capital firm, MC control is limited in most of the companies. He states that some even get surprised when they run out of money. Additionally, he

states that many investors only require a simplified financial statement, but AB Chalmersinvest requires a complete report to be vigilant for signs, which could be interpreted as warnings. The interviewee expresses that an investor needs to be certain that the manager has control over the economy in the company. However, due to affordance and sometimes lack of ability, few firms apply MC in an early stage, according to the respondent. He states that the company needs to be of a certain size and have an active market before a MCS is of relevant use. The questions the informant states as necessary, in order to evaluate the effectiveness of MCS, are:

- Is the innovation possible to implement?
- What resources are available?

### 4.6.3 Different Phases in the Companies

The respondent believes that different types of MC tools are applied depending on what stage the company operates within. Additionally, he states that this implementation depends on the personal characteristics of the company's CEO. According to the informant companies have two phases. The first one is called pre-revenue, including liquidity forecast for the upcoming six months. Substantially, this phase comes down to evaluating how long it takes to bring in additional investment. Furthermore, the respondent states that the "hygiene factors" are important. The factors include e.g. keeping track of the business' equity (in order to avoid being personally answerable for it) as well as having intellectual property rights in place. Moreover, the CEO claims that the share register and the ownership agreements should be handled orderly in order to get them as an investor.

The second phase occurs after break even. In this phase, the respondent quotes, that administration and MC is of greater interest. He further claims that companies in this stage can be divided into two groups: those who make profits and those who lose out. Many companies have a poor track of accounts receivable, according to the respondent. This comes to expression by forgetfulness when it comes to sending reminders. The respondent claims that skilled finance managers remind customers if they have not paid on time, and pursue the matter further until the company receives its money. Generally, managers have difficulties with the financial accounting posts such as inventory, leasing, return on investment and how to use this information within the business, according to the respondent. Before break even, there are not enough resources or business transactions to make financial control useful, according to the respondent.

### 4.6.4 Significant Aspects for the Venture Capitalist

According to the CEO of the venture capital firm, the common denominator for all successful businesses is the person behind the innovation, i.e. the personal characteristics of the entrepreneur. In addition, getting along with people, within and outside the organization is crucial.

*“The personality should be characterized by stubbornness bordering on stupidity”*  
(- The CEO of Chalmersinvest)

The respondent argues that a particular feeling regarding a new venture is important whilst investing. Additionally, the business idea plays a major role in the decision-making process. Thereafter, the investor evaluates the product calculations, possible sales volume, what

organization is needed to implement the business strategy, costs associated with the production etc. He states that the product calculation always becomes less attractive as time goes. This is because the awareness of the actual production costs rises. Furthermore, unexpected competitors may occur, or the customers might not demand the product to the same extent that was originally expected.

According to the respondent, the gross margin and organizational costs are of interest to the investors. They want to know about the companies' "scale abilities", i.e. if the gain grows exponentially as the businesses grow. It is also important to understand the financial requirements of the companies. Further on, the CEO of the venture capital firm believes in incentive programs, designed to motivate key persons within the organizations. The incentive should be directly linked to the firm's profitability. Generally, key persons like the CEOs, own shares or options in the company.

Overall, the informant prefers when companies have patents and/or intellectual property rights. If not, it should at least be difficult for competitors to imitate the companies' concepts. The ISO certification is often required at a later stage in the development of companies (turnover of 5-10 MSEK). According to the respondent it is unnecessary to begin the process of certifying the product in an early phase, since there most often exists an initial lack of knowledge about the product or market.

The respondent identifies problems regarding scientists' cardinal role in innovative businesses. According to him, scientists are driven by interesting research projects and attention. Furthermore, he adds that scientists often travel abroad participating in research groups worldwide, which could lead to information sharing with potential or future competitors. Therefore, the companies should dispense holdings very carefully to scientists, if there are indications that the scientists want to go in directions that are not aligned with the businesses' goals, according to the respondent.

Regarding the involvement in the board of directors, the respondent demands to attend the board of directors in order to undertake an investment. Furthermore, he argues that the board of directors plays a prominent role in pressing the businesses to implement MCSs as soon as they start to expand. The informant states that he prefers to be the controlling monitor. To him, the strategy design and implementation is important.

## 5. Analysis

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*In this chapter the empirical findings will be analyzed with the theoretical framework as a basis. The chapter is divided into two sections; the MCSs in the studied companies and the drivers of MCSs.*

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### 5.1 The MCSs in the Studied Companies

#### 5.1.1 Innovation, Vision and Strategy

An invention does not necessarily lead to an innovation if there is no commercial use related to the product (Teece, 2009). The findings of the present study seem to be consistent with this view since the companies have highlighted the importance of customer relations. The product that is being developed needs to be evaluated continually in order to satisfy the true market demand.

The current study found that several of the companies continuously communicate and revise their visions. In addition, to enhance the employees' understanding and influence their behavior, some of the CEOs involve the employees in the process of establishing the visions. This finding is consistent with the theory regarding the importance of a vision in an entrepreneurial organization (Cornwall & Perlman, as cited in Löfstål, 2001). This study also indicates that the vision is considered as a motivating factor for the employees, which also corroborate with the study made by Cornwall & Perlman (as cited in Löfstål, 2001).

The interviewees express the significance of being more effective and flexible than their peers. The companies need to be able to change their focus in accordance with the environment. This result is in agreement with Davila (2005a), who suggests that the management needs to develop new strategies better suited for the future. Furthermore, Davila (2005a) argues that innovation is an organizational process that needs to be embraced by the management. The previous stated awareness appears to exist in the studied businesses as they claim that their initial investment will not be sufficient in the future. Instead, they express the importance of maintaining a creative environment and key knowledge in order to enhance the innovation process. Further innovations are needed in order to stay attractive on the market.

Several of the respondents state adaptability to internal and external circumstances and maintaining a competitive advantage as important in the organizations. According to Sweeting (1991) flexibility and adaptability are important for the business development and for the survival of the business.

#### 5.1.2 The Organizational Structure and MCS

The results of this study show that, generally, all of the companies have a decentralized organization structure. Several interviewees expressed the importance of listening to everyone in the organization, and the ability to fulfill the employees' needs of personal development in the organization. The interviewed CEOs stated that the employees are allowed to decide over their



own actions, and the controlling function ends after evaluating if goals and objectives are achieved. What the management theories define as workplace empowerment appears to play a vital role in the organizational climate. The findings, which demonstrated employees' involvement in the decision-making process is in agreement with Davila, Foster and Oyon (2009) who advocate that entrepreneurial innovative businesses rarely have a hierarchical organization structure. Furthermore, research indicates that a decentralized organization structure is recommended when operating on a market, which involves change, since it enhances the ability to adjust quickly during unforeseen circumstances (Simons, 2000). In the case of an organizational change or an external factor affecting the business, the informants in this study conclude that the business has to adapt constantly. In addition, all of the respondents claimed that this was a process that needed everyone's involvement.

One of the companies believes that the vision does not have to be well communicated throughout the organization. However, it does not seem to be a problem for the company and despite its decentralized structure it is developing in the intended direction, which is not consistent with the study by Gebert, Boerer and Lanwehr (2003).

This study found that the employees in entrepreneurial businesses have a surprisingly high degree of freedom in their work. This is to some extent consistent with research conducted by Amabile, Conti, Coon, Lazenby and Herron (1996) who showed that successful innovations depend on the perceived work environment but also on the organization- and the supervisors' encouragement. In general the employees are exclusively controlled by results controls, which according to Simons (2000) lead to enhance innovation opportunities. In addition, a majority of the CEOs claim the business' vision and goals to be well communicated inside the company, providing a favorable environment according to Löfstål (2001). In the light of functional demands e.g. new product developments and innovations, the control package often results in high reliance on results control (Sandelin, 2008).

Most commonly, the companies use monetary bonus systems in order to enhance the motivation. However, it is proclaimed by the respondents that the employees are intrinsically motivated by the innovation itself and the business vision, resulting in an enthusiastic environment with long working hours. Amabile, Conti, Coon, Lazenby and Herron (1996) support this finding, claiming the importance of a motivational factor inside innovation-intensive businesses. Regarding hiring employees (not CEOs), Amabile, Conti, Coon, Lazenby and Herron (1996) advocate a selection of creative individuals. Surprisingly, this was not well supported in the findings of the current study. Some of the companies described creativity as a key factor when hiring, but the majority of the interviewees showed more subtle proceedings, focusing on specific requirements related to the job in question.

Furthermore, the respondents expressed that they seldom implement control intentionally. The empirical findings indicated that the companies to the greatest extent spend their resources on value-adding activities. In addition, one of the informants stated that controlling activities such as evaluating key performance indicators was a waste of time and money. Instead, he focused on calling potential customers. Overall, adjusting to the situation and implementing control as the need arises appeared to be common in the interviewed businesses. The findings presented above, to some extent, corroborate with O'Reilly and Tushman (2008), who claimed that upcoming new

businesses have a comparative advantage against big corporations since they are better at exploiting and exploring their assets. The fact that the CEO in small businesses does not pay a significant amount of time evaluating the key performance indicators may be because (s) he is better at exploiting her or his assets. Further on, arguing that smaller businesses are better at adapting to change may be hard. They might be more flexible in their organizational structure, embracing opportunities, discoveries, autonomy etc., but the resources may not be sufficient to make the final adjustment. In order to analyze if the companies in this study are better at exploiting and exploring their assets, a complementary study needs to be done.

Research within the field of entrepreneurship argues that networking is especially important in this environment since it enables the establishment of the business, and supports it in a rapidly changing environment (Löfstål, 2001; Teece, 2009). Company B and G are members of the same network, and one seems to value it more than the other. Company B exploits this network to get the latest news in the branch. Some of the companies claimed that partnerships were vital and also measured as an objective. This finding supports Teece (2009) research, indicating that networking ease on the business development.

### 5.1.3 The Managers' Chaotic Environment

The results of this study show that the CEOs are very dedicated to their jobs. They work long, hard hours, day after day, with a motivational factor beyond self-interest. This finding is in agreement with Macintosh and Quattrone's (2010) description of the manager as a nerve center. Furthermore, this study supports Macintosh and Quattrone's (2010) research by showing that the managers' environment is not very structured, in most cases. A large amount of formal and informal information is circulating inside the businesses. The informal information is regarded as of equal importance as the formal one. However, none of the CEOs have described the somewhat chaotic environment as negative. On the contrary, they all seem optimistic about their positions as CEOs, supporting Mintzberg (as cited in Macintosh & Quattrone, 2010), claiming that managers appreciate their chaotic environment. Neither the CEOs nor the CEO of the venture capital firm have been able to give a substantial answer to the question of what is used as a basis for decisions. Some respondents mention different margins, but it appears to be the subjectively perceived environment of the CEOs and the customer demand that primarily influences the decision-making process. To some extent, the result accords with Andersson's (1995) research, stating that the sixth sense is widely used by managers.

A majority of the businesses has a determined strategy. However, it is noteworthy that some of the businesses still struggle with the formulation of a strategy. Regardless, the findings of this study indicate that strategy formulation is perceived as a very important task, from the business' point of view as well as the venture capitalist's. This is in accordance with earlier research conducted by Macintosh (1994) and Cohn and Lindberg (as cited in Andersson, 1995), arguing that planning is the hardest area to manage in small businesses.

Furthermore, the businesses experience less problems related to the motivation of the employees, than problems related to sales, which further supports the study by Cohn and Lindberg (as cited in Andersson, 1995). Finding new key customers and increasing sales volume is often stated as primary goals, by the businesses. However, one unanticipated finding was that the CEOs' focus is equally distributed between long- and short-term strategic perspectives. This finding

contradicts the study by Cohn and Lindberg (as cited in Andersson, 1995), claiming that long run perspective is unnecessary and too expensive for small businesses. The respondents of this study claim that both perspectives are important. However, stating that the long run perspective most often is forced onto the businesses by the venture capitalist.

Moreover, the results of this study supports Cohn and Lindberg (as cited in Andersson, 1995) when it comes to the composition of chairmen in the board of directors. Both the CEOs and the CEO of the venture capital firm have described the composition of the board of directors as being of high importance, in this study.

#### 5.1.4 Control versus Autonomy

Throughout the interviews, the CEOs expressed the inconvenience of managing the organization without restraining the employees' independence. In the late 80s, Feldman (1989) stated that whether implementing autonomy or control have to be considered by the manager, who also should be involved and influence the relationship between the two extremes. Several of the respondents do not believe in controlled work hours. Instead they favor freedom under responsibility, and the employees are free to leave and come as they wish, in an environment of trust. However, as stated earlier, recently one of the informants had an unpleasant surprise as an outcome of this freedom. This event got the CEO to reconsider the control routines regarding the employees' working hours. Nevertheless, he finally opted a system of trust. To him, this was more important than being able to evaluate every single presentation of the employees. Generally, the opinion regarding how much the employees in the organization should be controlled is limited to evaluating if they reach their sales targets, organizational objectives and value-added activities within the company. This finding indicates that results control is used as an important control mechanism in the studied companies. Additionally, three of the respondents stated that the CEO easily could control the employees at a small workplace due to the low number of employees.

Nevertheless, respondents state that controlling employees depend on the situation and the person being controlled. The CEO of one of the life science companies stated her insufficient knowledge to control the scientists. However, the respondent proclaimed her responsibility to at least show which direction the scientists' work should take. Davila (2005a) stresses this by concluding that MCSs should be flexible and dynamic, especially when the business is innovative-intensive. The CEO and the CEO of the venture capital firm confirmed the scientist's role, claiming that problems occur as a consequence of them travelling abroad interacting with researchers all around the world. Therefore, the CEO of the venture capital firm suggested that companies that are portioning out shares to scientists should be extra cautious doing so if there are any indicators that the scientists want to explore a direction, which is not in accordance with the organizational goals.

Another interesting finding is that social control appears to have a significant role in some of the organizations. As stated in the empirical findings, one of the CEOs clearly expressed that the employees were divided into subgroups in order to control each other. The respondent found this method as more effective than him giving orders, as he used to do before. Instead, the employees push, support, control and motivate each other without him watching over their shoulder. Moreover, this element appears to be one of many in the MCS, which is in alignment with research made by Sandelin (2008).

Further on, the interviewees demonstrated that the managers often control the organization in an informal way. Several of the respondents believe that their employees are driven by the company's inspiring goals and their ambition to contribute to the organization. Macintosh and Quattrone (2010) stated that businesses in their early stage often rely their management skills and control on charismatic leadership and personal relations. Furthermore, they claim that control can be managed in an informal way, as long as face-to-face interactions are possible and employees can control each other with social-, and clan control (Macintosh & Quattrone, 2010; Davila, Foster and Oyon, 2009). This is by all means logic in a small organization, which additionally may explain why the larger organizations in this study often replaced their CEO and now utilizes greater formal control. In contrast, as the following section will explain further, one of the CEOs who now control the company to a more formal extent than others, has been in the company since the beginning.

## 5.2 The Drivers of MCSs

### 5.2.1 The Emerging Need of MCSs

The findings from the interviews indicate that the implementation of MCSs often is a result of an organizational change or imbalance such as an increased number of employees, an overburdened CEO or invoices that are forgotten to be sent. Consequently, the growth of the company appears to correlate with the emergent need of a more formalized control function in the organization. This finding is in agreement with research conducted by Davila and Foster (2007), Cardinal, Sitkin and Long (2004) and Flamholtz and Randle (2000) who conclude that informal control in growing businesses is insufficient. The CEO of the venture capital firm agrees with the authors and states that the companies need to be of a certain size and operate on an active market before MCS is of relevant use.

Additionally, Flamholtz and Randle (2000) claim growing companies require new processes and structure to support the new size. As illustrated in the previous chapter, the organizational schemes vary depending on the company. Organizing with different functional units and giving employees certain titles may lead to the impression that the organization is structured. However, this was not always the case in this study, since the roles were far looser than they appeared to be. If further structure is not implemented in accordance with Flamholtz and Randle (2000) the consequence may be an uncontrollable work burden, which one of the companies in this study experienced. Consequently, he corrected it by hiring more staff and delegating some of his tasks to the co-workers. In addition, another respondent claimed that the communication in the company was affected by the increase in number of employees, stressing on the improvement of communication channels. These findings support organizational change as a driver of the implementation of MCS.

In the present study the respondents indicated that some elements in the MCSs often are implemented at an early stage, e.g. budgeting. Generally, the intention of the budget did not appear to be as a controlling function. Rather, our findings indicate that it often was an outcome of external forces, such as the board of directors or the venture capitalists. This finding is in consistence with the CEO of the venture capital firm who stated that budgets and presenting accurate and important information were vital in order to obtain funds to the business. In addition, Davila and Foster (2007) claim that venture capitalists often drive the implementation of MCSs.

Nevertheless, one of the respondents utilizes budgeting as an element to control the business. The empirical findings indicated that some of the businesses have a remarkably different approach to control than others. Company B is the largest company regarding number of employees, turnover, net income and assets. It is not the oldest but the most profitable one at the moment. Interestingly, the CEO of this company has been working within the company from the start, which is not fully in agreement with Davila and Foster (2007). However, the CEO in Company B is one of the most experienced respondents in this study regarding both academic background and from previous workplaces. Furthermore, there appears to be more organizational structure within firms with many employees. Compared to the companies with less than ten employees, Company B appears to utilize a formal control, with results control as the main tool to motivate the employees. Here, the CEO stated that sales target was the most frequently used key indicator of performance. Further on, this finding is supported by Greiner (1972), Macintosh and Quattrone (2010) and Davila (2005b) who argue that growth drives the implementation of MCSs. Consequently, the need of control appears to be positively correlated to the size of the company since several of the respondents in the smaller organizations believed that they had no need of further control. However, one of the respondents requests all decisions to be checked by her, indicating a higher supervision. The study made by Davila, Foster and Oyon (2009) advocated the ability to shift from an informal- to a formal control as a critical moment for the management. This study further supports Cardinal, Sitkin and Long (2004), showing that an increased formal control often is a result of organizational imbalances. One company for example, failed to send invoices to the customers because of an unstructured organization. This initiated the implementation of further structure and control.

### 5.2.2 The Implementation of a MCS

Throughout the interviews a majority of the respondents stated that monitoring cash flows was the most important area of interest. As previously mentioned, budgets are also used in all of the companies and implemented at an early stage. The present findings seem to be consistent with the study made by Davila and Foster (2007), which concluded that budgets, cash flows and sale projections are the first MC instruments implemented in a business. Furthermore, monitoring cash flow and controlling the company towards desired liquidity appear to be of high importance. This is supported by research conducted by Sweeting (1991).

Moreover, three of the CEOs were employed after the companies were founded. Interviewees expressed that this event was related to the need of implementation more structure, further knowledge and previous experience of management. This finding is in consistence with research by Davila and Foster (2007). One explanation regarding founders who still work as CEOs could be because of their implementation of some MC elements. It may also be due to their considered ability by the board of directors and the owners. Another explanation may be the unrealized need of a new manager since the organization at the moment can be controlled informally. Moreover, the findings in this study are in agreement with Davila and Foster (2007) who advocate that the hiring of a specific manager is related to the implementation of MCSs. The CEO of the venture capital firm agrees with the theory that the CEO is of high relevance, when implementing MC.

Furthermore, the empirical findings indicate that HR is present in all of the businesses. For example, incentive programs, evaluation of performances and communication of visions and strategies to the employees. In addition, both the CEOs and the CEO of the venture capital firm highlight the impact of strategic planning, whilst not utilizing financial planning systems. These findings are in agreement with Davila and Foster (2007).

### 5.2.3 MCSs and the Product Life Cycle

The three phases of the product life cycle is defined by Dergård (2006) and consist of; the discovery-, exploitation- and management phases. This study has respondents representing all phases. Company E constitutes a good example of the discovery phase, aiming at establishing their product on the market in 2013. In accordance with Macintosh and Quattrone (2010) the business activities are focused on R&D. In contrast to Dergård's (2006) research, the company is not using any accounting information at all. Profitability and growth indices are produced solely because they are required but are not used as a basis for decisions. Instead, the company uses non-financial quarterly goals and budgets to run the business. However, the use of MCS is in agreement with Macintosh and Quattrone (2010), claiming that evaluating the business prospects is of primary focus. The CEO of Company E is frequently visiting international events and meetings in order to evaluate business opportunities.

Company A, C, F and G are all representing the exploitation phase. In accordance with Dergård (2006) and Macintosh and Quattrone (2010) they are currently selling their products on the market, focusing on product development, finding new business partners, joint ventures as well as further research. Company D emphasized the importance of vertical integration in order to build strength and competitive advantages, which is common in this phase according to Macintosh and Quattrone (2010). Furthermore, the results show that future oriented and financial

information becomes more important in this phase, which is in agreement with Dergård (2006). Most of the companies are using e.g. selling price and sales volume as well as cash flow projections. Solely one respondent claims that the business does not use any accounting information at all, as the basis for decisions. However, none of the businesses seem to utilize any past-oriented information. Generally, costs are perceived as highly predictable, since they primarily constitute of establishment charges. All of the companies highlight the importance of customer relationships, which is in accordance with Macintosh and Quattrone (2010). In addition, Company F utilizes Porter's Five Forces as well as the PESTLE analysis in order to determine market demand. Company B seems to fit in Dergård's (2006) management phase, where the primary focus is to enhance profit and increase market share (Macintosh & Quattrone, 2010). Furthermore, the company expressed that budgeting was a tool to predict and establish where the company is heading and later to review and evaluate if they succeeded. This finding is in agreement to Dergård (2006) and Macintosh and Quattrone (2010).

The CEO of the venture capital firm believes that the implementation of MC depends on which phase the company is in. Only one of the concerned companies is still in the pre-revenue phase, since they are still developing their product and continually seeking additional investments. The pre-revenue phase is very similar to what Dergård (2006) defines as the discovery phase. Overall, the MCS has a greater ground in companies that have established their product on the market. The remaining companies are in the revenue-generating phase and show a greater interest for MC, which is in accordance with the statement from the CEO of the venture capital firm. However, there is only one company that shows a positive net profit.

#### 5.2.4 Venture Capitalists Influence on the Implementation of MCSs

The findings from the interviewed CEOs implicated that all businesses somewhat produced financial reports and key performance indicators as an outcome of the requirements from the board of directors and owners of the company. Davila (2005b) concludes that the implementation of a MCS is more likely to occur if the venture capitalists consider it as necessary. During the interviews the respondents demonstrated that they initially had an idea and a business plan, which later could be reviewed and revised, as the external parties got involved in the process. Respondents clearly stated that the venture capitalist's conditions grew in the same pace as the investments, leading to increased involvement in the organization. Admati and Pfleiderer (1994) support this phenomenon claiming that asymmetric information always takes place in a business development. Furthermore, interviewees expressed that the venture capitalist gain more control during the journey, which is in agreement with conclusions stated by Admati and Pfleiderer (1994).

Several of the CEOs claimed that, at the early stage of the business, almost all time was spent on finding funds. Moreover, interviewees demonstrated that they often got their capital in portions, leading to an uncertain environment if the company did not live up to the venture capitalist's expectations. This finding could be explained by research conducted by Sahlman (1990) who stated that this method is used frequently by the venture capitalist to deal with asymmetric information. Moreover, findings through the interviews show that specific milestones or objectives often were established by the venture capitalist to motivate the CEOs of the companies. This activity has support in research conducted by Jensen and Meckling (as cited in Macintosh, 1994), claiming that undesirable behavior can be limited by for example establishing an incentive scheme.

The interview with the CEO of the venture capital firm demonstrated that at least this company considered several factors before investing in an innovative business. The informant always, by no exceptions, required a seat in the board of directors. Furthermore, he stated that he often took the role as an advisor and commented that after several years in the business one gets to know the business environment. This finding corroborates past research by Sahlman (1990) and Sheu and Lin (2007) who argue that, in order to control the company, venture capitalists take on a role as e.g. strategic advisors and partners. Every involving action is correlated to affecting the overall performance of the business in which they have invested (Sahlman, 1990). By no means, they are interested in enhancing every possible opportunity that could lead to increased profitability.

Overall, respondents expressed their unwillingness to disappoint venture capitalists since they in that case do not only lose their current assets, but also scare off other venture capital firms. According to Sahlman (1990) the biggest threat to the companies is to be abandoned by the venture capitalist. Sahlman (1990) further suggested that a compensation scheme would encourage CEOs to decrease their risk tolerance, which is consistent with the CEOs demonstrating that they obtain incentives whilst accomplishing organizational objectives.



## 6. Conclusions

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*This final chapter presents the conclusions of this study and demonstrates the answer to the research question. The chapter is divided into two parts; the first describing the use of MCSs and their design, and the second discussing the implementation of MCSs. Furthermore, some new issues are described that were revealed during the progress of the study, presented as suggestions for further research.*

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### 6.1 The Extent and Form of MCSs in Swedish, Innovative, Technology-Based Start-Ups and Small Businesses

The results from this study indicate that the formulation of a vision is of high importance in innovative, technology-based start-ups and small businesses. Much emphasis is therefore put on communicating the visions to the employees. Commonly, the companies' broad objectives are broken down into sub-targets followed by daily activities in order to concretize the path towards their visions. Thus, the formulation of strategies, often supported by venture capitalists, is of major importance as a control mechanism. These findings corroborate existing theories regarding visions. However, involving the visions even more in the daily activities may benefit innovative start-ups and small businesses and enhance their ability to survive in a long run perspective.

Commonly, the CEOs in innovative businesses work what far exceeds nine to five jobs. In addition, they are all enthusiastic about their jobs, which is in accordance with previous research. However, they do not work more than anyone else in the organization. Rather, all of the employees work extremely hard to succeed with the innovation. These findings complement existing theory, which exclusively emphasize the managers' heavy workload without mentioning the employees' efforts. This study shows that employees in innovative businesses are expected to be ambitious, independent and dedicated, always performing at their best. Furthermore, the CEOs of innovative businesses do not care about *how* the organizational objectives are reached, rather *if* they are. In confirmation with this, all of the businesses appear to use results control as an important element of control, often combined with incentive programs. However, this study demonstrates the importance of motivating employees individually. For example, scientists appear to be motivated by prestigious recognition such as patents rather than monetary incentives.

A high level of informal (social) control was identified in several of the studied companies. This could appear in small groups controlling and motivating each other, as well as in the devotion to the company and the business' innovation. In contrast, action control was only identified to a low level in form of e.g. budgeting, which may be explained by the perceived negative effect of dictating how the employees should complete their tasks. This approach would most likely decrease the employees' innovative ability, and this is by all means avoided in an innovative context.

This study emphasizes that innovative businesses are aware of the fact that innovations will not last forever. Accordingly, key-knowledge needs to be maintained inside the business in order to preserve the creative environment, supporting new innovations. However, none of the companies expressed any specific strategy to accomplish this, except to pay the costs of necessary education. Nevertheless, by indicating that the employees should not be controlled, they are at the same time giving them freedom and independence, which is highly important to encourage the employee's creativity, according to the theory. In addition, all of the companies value a close relationship with the customers, providing further advantages when it comes to developing new innovations closely aligned to the market demand.

Regarding the use of formal control, this study found that innovative small businesses create budgets. However, it was surprisingly to find that only one of the CEOs appears to do so in order to control the company. Commonly, the opinion about budgeting is that it is used solely because it is required from external parties such as the board of directors and the owners. Therefore, the budgets become pre-defined activities, similar to what the theoretical framework defines as action control. Furthermore, cash flow and cash budgets appear to be frequently used by innovative businesses, and are regarded as highly important tools whilst evaluating the businesses. This finding corroborates the existing theory. Other important key performance indicators are contribution and profit margins. In contrast, evaluating costs seemed to be unimportant since they primarily consist of establishment charges, which are perceived to be highly predictable and thereby unnecessary to put focus on.

Further on, this study indicates that the use of MCSs to a high extent depends on the CEO's perception of control. The phenomenon was demonstrated in this study by showing that two of the largest companies (in terms of number of employees) had significantly different approaches to MCSs. Consequently, one of the CEOs implemented elements of control in order to develop the business, whereas the other appeared to do so solely to satisfy external parties such as the board of directors and the venture capitalists.

## 6.2 The Implementation of Control in Innovative Businesses

According to this study the CEOs' rely on informal control in the early stage of the venture. When the companies start to grow the need of a more formalized control appears to occur, partly because of organizational imbalances, which is in agreement with existing theory. For example, more structure in form of a CFO was implemented in one of the companies to ensure that the invoices were sent in time. In addition, another significant factor is the number of employees, which is in accordance with the theory. For example, the company with the highest number of employees is also the company with the most formalized processes in the organization (e.g. defined job descriptions/roles, functional structure of the organization, active communication of the company's vision, well-functioning communication channels and budgeting process). Consequently, innovative businesses could avoid imposing imbalances into the organization, by preemptively taking into account that an increased number of employees require a higher level of control and structure.

According to this study the MC tools are used in relation to how far innovative businesses have reached in their development, indicating various stages of the process of implementing MC tools. Innovative businesses still aiming at launching their product on the market appear to perceive budgets as irrelevant. Their perception of an uncertain future is an excuse to ignore the budgeting process. Key performance indicators are also disregarded since they are often negative. Rather, focus is on product development and cash flow projections, which is supported by the theory. Often, businesses in this phase have few employees, which may explain why they apply a lower level of control and put less emphasis of formalized processes. For example, loose organizational structure is common, e.g. existing functional units, however, without clear definitions where the employees belong. In addition, motivational incentives are uncommon, since everyone in the organization expects to be motivated solely by the devotion to the company or the innovation itself. According to the theory, structuralizing the organization further may be beneficial in order to establish the product on the market faster. However, it would also require more time and resources, stressing on evaluating the most value-added activity prior to implementing further control.

Businesses operating on an active market emphasize future oriented financial information, according to this study, which is supported by the theory. Focus is still on developing the product through further research and finding new business partners and joint ventures. However, selling price, sales volume and cash flow projections appear to be of more interest whilst evaluating the business prospects. In addition, the businesses aim to build strength and competitive advantages by vertical integration. Porter's Five Forces and the PESTLE analysis are used as strategy tools. On the contrary, businesses with steady sales use MCSs to increase their market share and profits. Here, budgeting appears to be a well-used control element. Even though uncertainty is still present, the firms in this phase appear to have a longer time horizon, putting less emphasis on temporary economic downturns. This contradicts the theoretical framework, arguing that small businesses should not focus on long-term perspectives, since they are costly and seldom worth the investment. In contrast, this study shows that venture capitalists presume that a long-term perspective benefits the businesses.

This study shows that the boards of directors and the venture capitalists influence the process of implementing MCSs, in accordance with past research. Thus, management tools (e.g. budgets and key performance indicators) were commonly used in the explored businesses on their demand. Generally, the venture capitalists require entering the board of directors, enabling their involvement in the implementation of MCSs. This study indicates that this event is positively correlated with the level of investment, which also is in line with the theory. When the companies start to grow, they get more pressure from the board of directors to implement MCSs. The theory claims that this event occurs as the venture capitalists identify a way to enhance their return on the investment. To prevent asymmetric information to occur, the collaboration between the CEO and the venture capitalist is important. Even though several of the interviewees have previous experience in management, they could utilize the venture capitalists' branch specific knowledge and take the opportunity to consult with them regarding the implementation of MC tools. The CEOs should not perceive MCSs as something negative that they are forced to implement, rather something that will help the organizations to achieve their goals efficiently.

### 6.3 Suggestions for Further Research

The empirical information in this study was gathered through interviews. Therefore, another approach, or rather a complementary one, would be to observe the companies and their daily activities in order to gain an enhanced understanding of the extent and form of MC and MCSs in an innovative context. Additionally, the organizational climate and the perceived creative environment could in this way be observed and analyzed in a manner that does not appear through interviews. Furthermore, by using observations the researchers might obtain information that most participants would ignore in an interview either because it is perceived as too common or because it is regarded as irrelevant, by the interviewee. However, this type of study would demand more time and resources and was considered too extensive for this thesis.

This study was conducted to complement past studies and to create awareness regarding the emergence and implementation of MCSs in innovative businesses. The results indicate that there could be organizational imbalances causing the MCSs to emerge, e.g. a too heavy workload related to the CEO or forgetting to send the invoices. Nevertheless, this study does not demonstrate, in-depth, the factors causing the MCSs to emerge. Therefore, future studies could examine these organizational imbalances, demonstrating to what extent they can be solved by the implementation of MCSs.

Moreover, during the preceding of this thesis we discovered some of the drawbacks related to the use of trust as a control element in the businesses. One of the companies was betrayed by an employee, which caused huge economic damage on the business. This event clearly illustrates the advantages of MCSs. Therefore, further studies could investigate the positive effects of control, in an innovative context, aiming at establishing the maximum extent of control that can be implemented without the impairment of creativity.

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# Appendix A - Guiding Questions for the First Round of Interviews with the Companies

## **Bakgrund**

Berätta kort om Din egen bakgrund.

Berätta kort om företaget.

## **Vision**

Vad är Er vision/framtidsplan?

Har Ni någon uttalad strategi eller hur arbetar Ni annars för att uppnå Er vision?

## **Styrning**

Arbetar Ni med mål inom organisationen? Hur är de utformade?

Budgeterar Ni, och i så fall till vilket syfte?

Vilken är den största bidragande faktorn till en framgångsrik innovation?

Hur gick Ni till väga för att införa styrning i verksamheten?

Hur hålls kreativiteten vid liv?

Vilken information använder Ni internt för att styra verksamheten och har det varierat?

## **Organisation**

Beskriv organisationsstrukturen.

Hur motiveras de anställda?

Hur sker kommunikationen inom företaget?

Hur skulle Du beskriva kulturen på företaget?

## **Innovationer**

Hur ser processen ut från idé till kommersialisering?

Hur arbetar Ni för att hålla Er konkurrenskraftiga på marknaden? Hur arbetar Ni för att Er innovation inte skall imiteras av andra?

# Appendix B - Questions for the Interview with AB Chalmersinvest

Hur sker urvalet av företag Ni investerar i?

Vad identifierar Ni som framgångsfaktorer hos företagen?

Har Ni kunnat se någon gemensam nämnare för företag som lyckats? Är framgången främst kopplad till själva innovationen eller till entreprenören?

Vad anser Ni om incitamentsprogram för nyckelpersoner i företaget?

AB Chalmersinvest ställer krav på att få delta i styrelsen. I vilket syfte?

Ställer Ni krav på företaget när det gäller ekonomistyrning? På vilket sätt?

Har det funnits någon struktur eller styrning i företagen vid investeringstidpunkten?

Hur aktivt är AB Chalmersinvest vid utformningen av företagens strategi?

AB Chalmersinvest kräver att företagen skall ha ordning och reda på ekonomi och administration innan följdfinansiering sker. Exakt vad innebär det?

Hur fungerar det när följdfinansiären träder in och Chalmersinvest gör "delexit"?

Vilken information används som beslutsunderlag i företagen? Är det enbart känsla som ligger till grund för beslut i de företag som ännu inte har implementerat någon ekonomistyrning?

# Appendix C - Questions for the Second Round of Interviews with the Companies

Frågor – Vänligen besvara nedanstående frågor. Exempel finns som tankeverktyg.

## Fråga 1

Hur säkerhetsställer Du att visionen och mål är välformulerade och förståeliga av samtliga i organisationen?

**Exempelvis:**

- Hur viktig/ hur stort utrymme har Er vision i det dagliga arbetet?
- Är den väl kommunicerad inom organisationen? Är det en bra kanal? Vad hade Du föredragit annars? Ytterligare?
- Känner alla medarbetare till visionen?
- Hur kontrollerar Du att de arbetar i enlighet med visionen? Måste de göra det, är det viktigt att de gör det? Varför, varför inte?

**Svar:**

## Fråga 2

Anser Du att Du kan besvara följande frågor? Vad skulle Du svara?

1. Vad förväntas av de anställda?
2. Är de motiverade att uppnå detta?
3. Finns de resurser och den kompetens som behövs för att uppnå det som förväntas av dem?

**Svar:**

## Fråga 3

Hur styr Du företaget för att det ska utvecklas åt det håll som Du vill?

**Exempelvis:**

Produktutveckling, nya produkter, nya tekniker, planering, kommunikation, budgetering eller andra metoder.

**Svar:**

#### Fråga 4

Hur kontrollerar Du företaget och vart det är på väg? Är det något som Du upplever som aktuellt i en viss fas eller sker det kontinuerligt? I så fall, på vilket sätt?

**Svar:**

#### Fråga 5

Upplever Du att det är svårt att kontrollera medarbetare och deras arbetsinsatser utan att det uppfattas som negativt?

**Exempelvis:**

- Hur balanseras självständighet vs. kontroll vad gäller medarbetarna?
- Om Du fick välja, skulle Du kontrollera medarbetarna mer i syfte att gynna företaget? Varför, varför inte?

**Svar:**

#### Fråga 6

Känner Du alla medarbetare på ett personligt plan eller är det enbart en jobbrelation?

**Svar:**

#### Fråga 7

Om Du fick välja, hur skulle arbetsmiljön se ut och hur skulle den uppnås?

**Exempelvis:**

- Hur säkerhetsställs en innovativ miljö?
- Vad är viktigt för att motivera kreativiteten? Är det viktigt?
- Vilka är de främsta verktyg som Du använder för att skapa ett kreativt och innovationsrikt företag?
- Hur skapas en organisationsstruktur där medarbetarna tillåts att vara kreativa; där de motiveras att vara kreativa?
- Har Ni idag ett organisationsschema, och i så fall hur ser det ut? Om inte, hur skulle Du föredra att det såg ut?

**Svar:**

#### Fråga 8

Hur ser Du på Dig själv som ledare?

***Exempelvis:***

- Vilka är Dina främsta egenskaper?
- Vad skulle Du kunna bli bättre på? Hur ser Din arbetsbelastning ut?

**Svar:**

Fråga 9

Hur hanteras externa förändringar?

***Exempelvis:***

- När det sker något i omvärlden som är svårt att hantera. Ser Du till att anpassa företaget efter nya möjligheter/ undvika hot, eller är det upp till medarbetarna att självständigt anpassa arbetsinsatsen?
- Hur arbetar Ni med att anpassa Er till den externa miljön? Hur arbetar Ni med att förnya Er?

**Svar:**

Fråga 10

Arbetar Ni främst mot uppsatta mål inom organisationen. Varför?

***Exempelvis:***

- Skulle Du föredra en handlingsplan som alla arbetade efter? Varför eller varför inte?

**Svar:**

Fråga 11

När började Ni använda redovisningsinformation; i vilket stadie? Hur och varför?

***Exemplevis:***

Produktionsprocesser, intern kapacitet, produkters potential, marknadsstruktur, försäljningspris, försäljningsvolym och kostnader eller finansiell information i form av marginaler, försäljning och vinst.

**Svar:**

Fråga 12

Vilken roll har styrelsen och hur påverkar det företaget?

***Exempelvis:***

- Hur sker kommunikationen med styrelsen? Fungerar den bra?
- Vad har de för krav på hur Du ska styra företaget? Exempelvis nyckeltal, mål, partners, patent,



joint ventures osv.

- Vad tror/ upplever Du som viktigt för dem? Värdesätter Ni samma mål?

**Svar:**

Fråga 13

Vilken roll har ägarna och hur påverkar det företaget?

**Svar:**

Fråga 14

Är Ni verksamma i något speciellt nätverk? Varför, varför inte?

**Svar:**

Fråga 15

Arbetar Du kortsiktigt eller långsiktigt?

**Svar:**

Fråga 16

Finns det en rädsla/risk att andra ska imitera Er affärsidé, om så är fallet, hur hanteras detta?

**Svar:**